

THE CORRELATION BETWEEN VOCABULARY MASTERY AND LISTENING SKILL AT TIIE TENTII GRADE STUDENTS OF MADRASAH ALIYAII ISLAMIC BOARDING SCHOOL AL-ANSOR MANUNGGANG JULU

## A TIIESIS

Submitted to English Education Department of Syekh Ali Hasan Ahmad Addary State Islamic University Padangsidimpuan as a Partial Fullfilment of the Requirement for the Graduate Degree of Education (S.Pd.) in English

Written By:

RIZKY ROMAITO RITONGA


Reg. Numb. 1720300019

ENGLISH EDUCATIONAL DEPARTMENT

# TARBIYAH AND TEACHER TRAINING FACULTY STATE ISLAMIC UNIVERSITY OF SYEKH ALI HASAN AHMAD ADDARY PADANGSIDIMPUAN 

THE CORRELATION BETWEEN VOCABULARY MASTERY AND LISTENING SKILL. AT TIIE TENTH GRADE STUDENTS OF MADRASAI ALIMAIISLAMIC BOARDING SCHOOL AL-ANSOR MANUNGGANG JULU

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## LETTER OF AGREEMENT

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| liem : 7 (seven) examplars | Dean Tarbiyah and |
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|  | Teacher Training Faculty UTN |
|  | Syekh Ali Hasan Ahmad Addary |
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|  | In- |
|  | Padangsidimpuan |

Assalamu'alaikumwr.wb.
After reading, studying and giving advice for necessary revision on the thesis belongs to Rizky Romaito Ritonga entitled "The Correlation Between Vocabulary Mastery and Listening Skill at the Tenth Grade Students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu". We assumed that the thesis has been acceptable to complete the assignments and fulfill the requirements for graduate degree of Education (S.Pd) in English Education Department, Tarbiyah and Teacher Training Faculty in UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan.

Therefore, we hope that the thesis will soon be examined by the Thesis examiner team of English Education Department of Tarbiyah and Teacher Training Faculty UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan. Thank you Wassalam'alaikumwr.wb.

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## LEGALIZATION

Thesis

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Name<br>Reg. Number<br>Faculty<br>Department<br>Title of Thesis<br>: Rizky Romaito Ritonga 1720300019<br>: Tarbiyah and Teacher Training Faculty<br>: English Education (TBI-2)<br>: The Correlation between Vocabulary Mastery and Listening Skill at the Tenth Grade Students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.


#### Abstract

This research discussed about the correlation between vocabulary mastery and listening skill at the tenth grade Students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu. There are some difficulties that influence the students mastering vocabulary in listening to be low. Such as, most of the student lack of vocabulary. It is make the students are difficult to catch and recognize the words in listening activity

The formulation of this research was: 1) How is the vocabulary mastery, 2) How is the listening skill, and 3) Is there any correlation between vocabulary mastery and listening at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu. The aim of this research was to verify the correlation between vocabulary mastery and listening skill at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.

The kind of this research was quantitative research with correlation method. The population of this research was the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu which the total was 92 students from the three classes. Then, the sample of this research was 48 students from population that chosen by using simple random sampling. The researcher used test to know students‘ vocabulary mastery and listening skill on collecting the data.

At the result of this research, the researcher found mean score of students ${ }^{\text {b }}$ vocabulary mastery was 57.83 and mean score of listening skill was 52.66 . Besides, the score of $\mathrm{r}_{\text {count }}$ was 0.474 and $\mathrm{r}_{\text {table }}$ on $5 \%$ significant level was 0.368 . So, $\mathrm{r}_{\text {count }}$ was higher that $\mathrm{r}_{\text {table }}(0.474>0.368)$. Then, the score of $\mathrm{t}_{\text {count }}$ was 3.692 and $\mathrm{t}_{\text {table }}$ on taraf significant $5 \%$ was 2.02 . So, $\mathrm{t}_{\text {count }}$ was higher than $\mathrm{t}_{\text {table }}$ (3.692>2.02). It meant the hypothesis $\left(\mathrm{H}_{\mathrm{a}}\right)$ was accepted. The researcher concluded that there was a significant correlation between vocabulary mastery and listening skill at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.


Keywords: Vocabulary Mastery, Listening Skill

Name<br>Reg. Number<br>Faculty<br>Department<br>Title of Thesis<br>: Rizky Romaito Ritonga 1720300019<br>: Tarbiyah and Teacher Training Faculty<br>: English Education (TBI-2)<br>: The Correlation between Vocabulary Mastery and Listening Skill at the Tenth Grade Students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.


#### Abstract

ABSTRAK Penelitian ini membahas tentang hubungan penguasaan kosakata dengan keterampilan menyimak pada siswa kelas X Madrasah Aliyah Pondok Pesantren AlAnsor Manunggang Julu. Ada beberapa kesulitan yang mempengaruhi penguasaan kosa-kata siswa dalam menyimak menjadi rendah. Seperti, sebagian besar siswa kekurangan kosa-kata. Hal ini membuat siswa sulit untuk menangkap dan mengenali kata-kata dalam menyimak.

Rumusan penelitian ini adalah: 1) Bagaimana penguasaan kosakata, 2) Bagaimana keterampilan menyimak, dan 3) Apakah ada hubungan antara penguasaan kosakata dengan menyimak pada siswa kelas X Madrasah Aliyah Pondok Pesantren AlAnsor Manunggang Julu. Tujuan dari penelitian ini adalah untuk membuktikan hubungan antara penguasaan kosakata dengan keterampilan menyimak pada siswa kelas X Madrasah Aliyah Pondok Pesantren Al-Ansor Manunggang Julu.

Jenis penelitian ini adalah penelitian kuantitatif dengan metode korelasional. Populasi dalam penelitian ini adalah siswa kelas X Madrasah Aliyah Pondok Pesantren Al-Ansor Manunggang Julu yang berjumlah 92 siswa dari ketiga kelas tersebut. Kemudian sampel penelitian ini adalah 48 siswa dari populasi yang dipilih dengan menggunakan simple random sampling. Peneliti menggunakan tes untuk mengetahui penguasaan kosakata dan keterampilan mendengarkan siswa dalam mengumpulkan data.


Pada hasil penelitian ini, peneliti menemukan skor rata-rata penguasaan kosakata siswa adalah 57.83 dan skor rata-rata keterampilan mendengarkan adalah 52.66. Selain itu nilai $r$ hitung sebesar 0.474 dan $r$ tabel pada taraf signifikan $5 \%$ sebesar 0.368 . Jadi, $r$ hitung lebih tinggi dari $r$ tabel ( $0.474>0.368$ ). Kemudian diperoleh nilai $t$ hitung sebesar 3.692 dan t tabel pada taraf signifikan $5 \%$ adalah 2.02. Jadi, t hitung lebih tinggi dari t tabel ( $3.692>2.02$ ). Artinya hipotesis (Ha) diterima. Peneliti menyimpulkan bahwa ada hubungan yang signifikan antara penguasaan kosakata dengan keterampilan menyimak pada siswa kelas X Madrasah Aliyah Pondok Pesantren Al-Ansor Manunggang Julu.

Kata kunci: Penguasaan Kosakata, Keterampilan Mendengarkan

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Padangsidimpuan, 09 September 2022
Researcher

## RIZKY ROMAITO RITONGA Reg. Number. 1720300019

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## CHAPTER I

## THE INTRODUCTION

## A. Background of the Problem

Listening is one of the most important skills in English language. It is essential part of the communication process that should be mastered by the students. By listening, the students can acquire the information and develop of what the speakers say. Listening is not only just hearing, but also understanding. It means, in listening the students should be really understand the words that the students hear because listening is about understanding in hearing English.

Listening in curriculum 2013 that learning and teaching listening are not given separately, but in an integrated manner and basic competencies that exist in the syllabus are according to the level. In the 2013 curriculum, there are some materials of teaching English that must be mastered by students. They are listening, speaking, reading and writing. Listening is one of language skills that taught at senior high school. Listening as the main tool of communication has an important position in school. Listening becomes one of the skills to be mastered by senior high school students.

The essential of listening to students is an important element in the conversation of learning a Foreign Language because the students should be able to know what the teacher or other people are saying. If the students
have a very limited vocabulary, then vocabulary can be taught through English listening.

Besides, all the efforts has done by the government to improve the quality of education. In the school also make an effort to raise the students ability, the school has prepared equipment to support the students activities in study. The teacher has an important role in teaching learning process. Teacher gives their knowledge and share some motivation to make students success in listening skill by mastery of vocabulary.

In the real condition of listening skill in the field is still poor. Based on private interviewed with Mrs. W one of the English teachers in Madrasah Aliyah Islamic Boarding School Al Ansor Manunggang Julu. -There are some difficulties that influence the students mastering vocabulary in listening to be low. Such as, most of the student lack of vocabulary. It is make the students are difficult to catch and recognize the words in listening activityll. ${ }^{1}$ And also, -The students are also low motivation in learning English because they feel English is difficultl..$^{2}$ Some of students said if the students master vocabulary, they would listen easily and guess every word or sentence that they heard from the material. ${ }^{3}$ So, the researcher has seen from the problem of tenth grade students ${ }^{\text {s }}$

[^0]vocabulary is still poor, because in learning English still lack vocabulary especially in listening.

There are many factors that can improve listening skill of students. One of the factors is an interest. Hurlock in Atmaja said that -interest provides a strong motivation to learnll. ${ }^{4}$ Another factor that influences students‘ listening skill is vocabulary mastery. Aebersold and Field said -Knowing vocabulary is important for getting meaning from a textll. ${ }^{5}$ This idea also supported by Coady and Huckin, who state that -the most important thing about learning a language is accumulating new words as equivalents for concepts which they can already express in their native languagesll. ${ }^{6}$ As general truth, there many factors in listening skill but the researcher only focuses on vocabulary mastery factor, because knowledge of words will help students to recognize words and assign meaning to it.

Vocabulary is the basic of elements in English language skill. It is a part of language that so important to all aspects in life. Vocabulary also is a vital aspect in language because it appears in every skill of language such as listening, speaking, reading and writing skill.

Vocabulary is one of the important language elements that should be mastered by students. ${ }^{7}$ Furthermore, mastering vocabulary will help

[^1]other aspects (four skills) in language especially in listening. By mastering vocabulary, students probably get information and ideas more effectively. Through this element, students can communicate, learn and think.

The role of mastery vocabulary use media to listening skill is very important because media is the effective to be use. The use of media such as news broadcasts, films, songs and audio visual media will greatly help students improve listening skills. The use one of media, the students can be able to identify accents, know how to pronounce vocabulary, grammar rules, and understand vocabulary meaning. Teaching other language is very difficult. But, it did not difficult if the teachers are able to understand needed. The researcher know of the methods are matched to students. Moreover, teach the students it is so difficult. They are like something fun, happy, laugh, unique, and interest.

Based on the explanation above, the researcher is interested to conduct a research entitled -The Correlation between Vocabulary Mastery and Listening Skill at the Tenth Grade Students of Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu.

## B. Identification of the Problem

Listening is the first skill that the students have to master before learning a foreign language. Listening also is one of the most important skills used by students to communicate and understanding what the speakers say.

There are some factors that have relation to students listening skill, such as interest provides a strong motivation to learn and vocabulary mastery.

## C. Limitation of the Problem

As mention in identification of the problem above, there are some factors in listening skill, they are interest provides a strong motivation to learn and vocabulary mastery.

This research did not discuss all of the factors. This research is only focus on one factor that is vocabulary mastery, this ways can be help the students improve their listening skill and make easier in get some information, and also students can communicate, learn and think.

This research choose this factor because this factor is considered more contribution in listening.

## D. Formulation of the Problem

Including the research, the researcher describes the formulation of the problem as follows:

1. How is the vocabulary mastery of the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu?
2. How is the listening skill of the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu?
3. Is there any correlation between vocabulary mastery and listening skill of the students at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu?

## E. Purposes of the Research

Based on above formulation of this problem, the researcher determined that the purposes of this research can be stated as follows;

1. To know the vocabulary mastery of the students at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.
2. To know the listening skills of the students at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.
3. To know is there any correlation between vocabulary mastery and listening skill at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.

## F. Significances of the Research

The results of the research are expected to give both theoretically and practically:

1. Theoretically

Theoretically, this research is to improve knowledge either for teacher or society. It is hopes that the result of this study is expected to have contribution for development of English teaching, to give information to the reader about the correlation between vocabulary mastery and listening skill of the students.
2. Practically
a. For the teacher

The result of this research can give information for the teachers about the correlation between vocabulary mastery and listening skill.
b. For the head master

To motivate the English teachers to teach English best.
c. For the researcher

The result of this research can be consideration and additional information for other researchers who will conduct any further studies in the same field.

## G. Outline of the Thesis

The systematic of this research is divided into five chapters; each chapter consisted of some sub chapters with details as follow:

The first chapter consist of introduction; background of the problem, identification of the problem, limitation of the problem, definition of operational of variables, formulation of the problem, purposes of the research, significances of the research, outline of thesis. The second chapter consist of the theoretical descriptions with some sub theory about vocabulary mastery and listening skill, review of related finding, framework of thinking, hypothesis.

The third chapter consist of the research methodology; place and time of the research, research method, population and sample, instrument
of the research, validity and reliability, technique of the collecting data, technique of analysis data. The fourth chapter consist of the result research; that talking about the description data, hypothesis of testing, here the researcher also has found that there are the significant correlation between vocabulary mastery and listening skill. Finally, in the fifth chapter consist of conclusion and suggestion.

## CHAPTER II

## LITERATURE REVIEW

## A. Theoretical Description

## 1. Vocabulary

a. Definition of Vocabulary

Vocabulary is one of the materials studied by students of all level of schools in Indonesia. According to Hornby explains that -vocabulary is one of language elements. It is all the words that a person knows or use, the word that a people use when they are telling about particular subjectll. ${ }^{8}$ Moreover, Averill stated that -vocabulary is a central part of language. The more words students know well and can use, the more meaning they can communicate in a wide variety of circumstancesll. ${ }^{9}$ Richard and Renandya said, -Vocabulary is a core component of language proficiency and provides much of the basic for how well learners speak, read, listen and writell. ${ }^{10}$ It means, words can be noun, verb, adverbs, adjectives, preposition and conjunction to use language. In addition, -Vocabulary is all the words that a person knows or usesll. ${ }^{11}$

[^2]By the explanation of the experts above, it can be concluded that vocabulary is one of language element that person used and vocabulary is the most important component language because it affects the four language skills, there are listening, speaking, reading, and writing. Vocabulary supports the speaker to express their opinions, ideas, and feelings in communication.

In curriculum 2013 -vocabulary is a collection of words that pay attention to social functions, text structure and linguistic elements related to people, activities, actions, and events in the pastll. ${ }^{12}$ It means vocabulary is very important for every student. It can help students to identify people, activities, actions, and events in the past.

Based on the definition above, it can be concluded that vocabulary is a whole word or certain concept owned by a person or a language in environment or vocabulary is a collection of several words to become a complete sentences or collecting of word that are understood and use to communicate in a language.
b. Purpose of Vocabulary

Vocabulary is the main tool for students to use English effectively that will be able to learn the language more easily if students are aware of the benefit of mastering the vocabulary, and

[^3]also will be able to express their ideas easily and can understand what the speaker is saying.

Meltzer and Hamman mention, the purpose of vocabulary, they are; increase reading comprehension, develop knowledge of new concepts, improve range and specificity in writing, help students communicate more effectively, and develop deeper understanding of words and concepts with which students are only nominally familiar. ${ }^{13}$

In 2013 curriculum, -the purpose of vocabulary is making it easier for students to understand the word so that it helps in mastering other sciences globallyll. ${ }^{14}$ The specific explanation above, the purpose of vocabulary is the students are able to memorize vocabulary, the students are able to enrich vocabulary in daily activity, and the students are able to know the meaning and understanding of words.

## c. Kinds of Vocabulary

According to Hatch and Brown in Alqahtani, indicate two kinds of vocabulary, namely receptive vocabulary and productive vocabulary;

1. Receptive Vocabulary

Receptive vocabulary is words that learners recognize and understand when they are used in context, but which learners cannot produce correctly by themselves.

[^4]2. Productive Vocabulary

Productive vocabulary is the words that the learners understand and can pronounce correctly and use constructively in speaking and writing. ${ }^{15}$

In addition, John stated there are two kinds of vocabulary; they are active and passive vocabulary.
a. Active vocabulary (productive) is used in speech or writing and is made up of words that come up in person's mind immediately when he or she has to produce a spoken or written sentence or active vocabulary refers to words which students can understand pronounce correctly, and use constructively in speaking and writing.
b. Passive vocabulary (receptive) is known but not used by a person. People understand it when it is heard or read, or passive vocabulary are words which students recognize and understand when they occur in a context, but they cannot produce the words correctly. ${ }^{16}$

Based on the experts above are same but Hatch and Brown says kinds of vocabulary are receptive vocabulary that means the learn about how the words are used in the context, and productive vocabulary means that the learners also learn about how the words are pronounced in speaking and used in writing. While John says, kinds of vocabulary are active vocabulary will be easy to understand by using concentration patterns and grammatical words to get vocabulary and passive vocabulary refers to the words the students meet in listening text and learners understand but cannot understand the words correctly.

[^5]So, both kinds of vocabulary blend together. The active vocabulary may seem to be more important in communication, however the aim of teaching foreign language is to expand both the students passive and active vocabulary and develop all the four basic language skill; speaking, writing, reading, and listening.

## d. Aspect of Vocabulary

In learning vocabulary, there are some aspects that should be learned by the learners. According to Lado as cited in Mardianawati, the aspects of vocabulary that can learn by the learners are follows:

1. Meaning

In learning foreign language, students should know what the meaning of the word. Knowing the meaning of the word it will make easier for students to use it for written or oral communication.
2. Spelling

In learning vocabulary, spelling is very important since it can help in reading activity. It can tighten the connection between sound and letters. In learning English vocabulary, students can not spell the word well because there some words that have different from what is written.
3. Pronunciation

Pronunciation is the way to say words and letters. Pronunciation is difficult to learn because there is no connection between words have only one pronunciation and sometime a word has two pronunciation or more than two pronunciations.
4. Word classes

Word classes are categories of words such as noun, verbs, adverb, adjective and preposition. Word class is an important feature in semantic analysis.
5. Word use

Word use is how a word, phase, or concept is use in a language. Lexicographers gather samples of written or spoken instances where a word is used and analyze them
to determine patterns of regional or social usage as well as meaning. ${ }^{17}$

Meanwhile there are several aspects of lexis that need to be taken into account when teaching vocabulary;

1. Polysemy: Polysemy is concerned with the way words often have a number of different meanings.
2. Homonyms: Homonyms are words that share the same form but have unrelated meaning.
3. Hyponyms, understanding words that have the same pronunciation but different spellings and meanings.
4. Synonyms: English has a lot of different words with similar but slightly differing meanings.
5. Register: Register is cornered with the overall tone of a text or conversation and the relationship that is built between the speaker and listener or reader and writer.
6. Connotation and Denotation: To communicate effectively, you will recognize that many words have a denotation as well as a connotation. Denotation means the dictionary definition and connotation means that implied or suggested and meaning. ${ }^{18}$

Based on above, there are some aspects that can be learned by study and several aspects of lexis that need to teaching vocabulary. They are; meaning, spelling, pronunciation, word classes, word use, polysemy, homonyms, hyponyms, synonyms, register, connotation and denotation.

[^6]
## e. Importent of Vocabulary

Vocabulary is the basic component to help the students in mastering language. They will learn the language skill easily if they have enough vocabulary.

There are some advantages when students can master the English vocabulary. According to Bonet here some advantages:

1. Students will be better improving their reading, writing, speaking and listening vocabulary.
2. Students will think more clearly. Thoughts are limited by vocabulary.
3. Students will experience personal growth and greater confidence.
4. Students will understand other people idea and explanation easily.
5. Students will gain important survival tools for the new millennium.
6. Students" friend will think they are getting very smart. ${ }^{19}$

Those advantages show us how vocabulary determines on how students learn language and their capability to build communication with others. Moreover, mastery in vocabulary is more important than grammar. Like Thornburry stated that, without grammar very little can be conveyed, without vocabulary nothing can be conveyed. ${ }^{20}$

In other word, even without good grammar, people may able to speak and understand a language if they know a lot of vocabulary. While vocabulary is largely a collection of words, grammar is a

[^7]system. ${ }^{21}$ So, it shows how vocabulary determines on how people learn language.

## f. Material of Teaching Vocabulary

The topic of teaching vocabulary in Madrasah Aliyah Al Ansor Manunggang Julu for the tenth grade taken from student's handbook for even semester. They are; The Battle of Surabaya, B.J.Habibie, Cut nyak Dien, Issumboshi, Malin kundang, The Wight brother, Strong wind, and You've Got a Friend. ${ }^{22}$ The material of this topic is story of Malin Kundang. The content of the material explain about an imaginative story to entertain people, place, activity, family, and character. The materials will be used by the researcher to test the student vocabulary mastery.

The challenges for exercises vocabulary used from the aspects of vocabulary. They are use of vocabulary and meaning of the words in the text. The kinds of exercise are multiple choices and match the words. In order to understand the texts, the students need to have more vocabulary.

[^8]1) The exercises of vocabulary ${ }^{23}$

## F VOCABULARYBUILDER

Match the words with the Indonesian equivalents. Compare your work to your classmate's.

| live hard (verb) mengenali <br> passed away (verb) kaya raya <br> raided (verb) hidup susah <br> pirates (noun) mengingkari <br> bravery (noun) menyerang <br> defeat (verb) menghancurkan <br> wealthy (adjective) membujuk <br> recognized (verb) keberanian <br> merchant (noun) mengutuk <br> denied (verb) pedagang atau saudagar <br> pleaded (verb) meninggal <br> cursed (verb) bajak laut <br> wreck (verb) mengalahkan |
| :--- | :--- |

## 2. Listening Skill

## a. Definition of Listening

Listening is the first skill and basic ability in learning a new language that beginners have to learn. It is a receptive skill meaning that the language learning beginners receive new words from what they have heard or listened to. There are some the definition of listening by experts.

Based on Nunan, -listening is a process of decoding the sounds that are heard from the phonemes to the text completelyll. ${ }^{24}$ Meanwhile, Brown defines -listening is a complex activity, and we can help students comprehend what they hear by activating their

[^9]prior knowledgell. ${ }^{25}$ In addition, Walberg -Listening skills are essential for learning since they enable students to acquire insights and information, and to achieve success in communicating with othersll. ${ }^{26}$

From the definitions above, it can be concluded that listening is a process of decoding the sounds and complex activity, and the ability to understand the messages being expressed by the speaker through the sound.

On the English Curriculum K 2013 stated that:
Listening is understanding various meanings (interpersonal, ideational, textual) in various interactional oral texts and monologues, especially those in the form of descriptive, narrative, spoof/recount, procedure, report, news item, anecdote, exposition, explanation, discussion, commentary, and review. ${ }^{27}$

Based on the statement above, it concluded that listening is the first skill that the students do in learning language, and the effective communication. It means, listening is identifying and understanding what the speakers say. From listening can gotten information and knowledge.

## b. Purposes of Listening

Listening is the process of a person understanding the meaning of the spoken language. The aim of listening is to get the meaning of what the listeners hear and then produce a response to show

[^10]what they have understood. -The purpose of listening in generally is to gain information that becomes the basis for taking a decision on any topicll. ${ }^{28}$

Here, there are some purposes of listening in specific according to some experts. First, according to Byrne in Ardhani_s paper, there are some of purposes of listening:

1) The process of hearing
2) Understanding
3) Evaluating
4) Responding to the message. ${ }^{29}$

Based on explanation above are the purposes of listening in specifically and generally. So, based on English curriculum 2013, the purpose of listening as follow:

1. Understanding transactional and interpersonal discourse (e.g. introductions, buying and selling, teacher instructions, and spontaneous reactions) and/or oral monologues, especially with regard to discourse in the form of narratives, procedures, spoofs, recounts, reports, and news items.
2. Can identify the meaning of words, sentences, and utterances very well and accurately.
3. Can identify stress and intonation very well and accurately.
4. Can respond to utterances in interpersonal or transactional discourse with very good and accurate.
5. Can identify main ideas, supporting and detailed information in monologue discourse very well and accurately. ${ }^{30}$
[^11]The purpose of listening performance is not necessarily to look for global or general meanings but to be able to comprehend designated information. It means listening is very important to know the language component required to understand the message when listening.

## c. Types of Listening

There are two broad types of listening, they are;

1. One-way listening-typically associated with the transfer of information (transactional listening).
2. Two-way listening-typically associated with maintaining social relation (interactional listening). ${ }^{31}$

According to Brown some types of listening performance, each of which comprises a category within which to consider assessment tasks and procedures as follow:

1. Intensive

Listening for perception of the components (Phonemes, words, intonation, discourse markers, etc.) of a larger stretch of language.
2. Responsive

Listening to a relatively short stretch of language (a greeting, question, command, comprehension check, etc.) in order to make an equally short response.
3. Selective

Processing stretches of discourse such as short monologues for several minutes in order to -scanll for certain information. The purpose of such performance is not necessarily to look for global or general meanings, but to be able to comprehend designated information in a context of longer stretches of spoken language (such as classroom directions from a teacher, TV or radio news items, or stories). Assessment tasks in selective listening could ask students, for example, to listen for names, number, a

[^12]grammatical categories, directions (in a map exercise), or certain facts and events.
4. Extensive

Listening to develop a top-down, global understanding of spoken language. Extensive performance ranges from listening to lengthy lectures to listening to a conversation and deriving a comprehensive message or purpose. Listening for the gist, for the main idea, and making inferences are all part of extensive listening. ${ }^{32}$

So, types of listening they are one-way listening, two-way listening, and intensive, responsive, selective, and extensive. From the explanations above about the types of listening, Students can improve their listening skills and gain valuable language input through a combination of extensive and intensive listening material and procedures. And the purpose of listening performance is not necessarily to look for global or general meanings but to be able to comprehend designated information.

## d. Barriers of Listening

Listening is not easy and there are a number of obstacles that stand in the way of effective listening, both within outside the workplace. There are some categories barriers to effective listening as follow:

1. Physiological Barriers

Some people may have genuine hearing problems or deficiencies that prevent them from listening properly. It can be treated. Some people may have problem in processing information or retaining information in the memory.

[^13]2. Physical Barriers

These referred to distraction in the environment such as the sound of an air conditioner, cigarette smoke, or an overheated room. It can interfere the Listening process. They could also be in the form of information overload.
3. Attitudinal Barriers

Pre occupation with personal or work related problems can make it difficult to focus one's attention completely on what speaker is saying, even what is being said is of very importance.
4. Wrong Assumptions

The success of communication depend on the both the sender and receiver. It is wrong to assume that communication is the sole responsibility of the sender or the speaker and that listener have no role to play. Such an assumption can be big barrier to listening.
5. Cultural Barriers

Accents can be barriers to listening, since they interfere with the ability to understand the meaning of words that are pronounced differently. The problem of different accents arises not only between cultures, but also within a culture.
6. Gender Barriers

Communication research has shown that gender can be barrier to listening. Studies have revealed that men and women listen very differently and for different purposes. Women are more likely to listen for the emotion behind a speaker's words, when men listen more for the facts and the content.
7. Lack of Training

Listening is not an inborn skill. People are not born good listeners. It is developed through practice and training. Lack of training in listing skills is an important barrier.
8. Bad Listening Habits

Most people are very average listeners who have developed poor listening habits that are hard to say and that act as barriers to listening. ${ }^{33}$

While effective listening is an important soft skill to learn and practice, it can be concluded that making it difficult to

[^14]understanding of listening. So, when recognize these barriers and learn how to overcome it. It can vastly improve listening skill.

## e. Aspect of Listening

Aspect of listening comprehension that should be consider in the development of teaching material. So, below there some aspects of listening comprehension:

1. Comprehension

It refers to the understanding of students in understanding the meaning and responses given.
2. Lexical Resource

It refers to the amount of vocabulary used by students and how clear the meaning is. This includes variations of the words used for the ability to get a complete vocabulary.
3. Grammatical range and accuracy

It refers to the various structures available to students and how accurate and appropriate they are used. Assessment takes into account the length and complexity of listening comprehension.
4. Pronunciation

It refers to the various structures available to students and how accurate and appropriate they are used. Assessment takes into account the length and complexity of listening comprehension. ${ }^{34}$

So, the aspect of listening they are comprehension, lexical resource, grammatical range and accuracy, and pronunciation.

## f. Process of Listening

According to Newton some listening processes as follow:
a. Bottom-up Processes

These are the processes the listener uses to assemble the message piece-by-piece from the speech stream, going from the parts to the whole. Bottom-up processing involves perceiving and parsing the speech stream at increasingly

[^15]larger levels beginning with auditory-phonetic, phonemic, syllabic, lexical, syntactic, semantic, propositional, pragmatic and interpretive.
b. Top-down Processes

Top-down processes involve the listener in going from the whole their prior knowledge and their content and rhetorical schemata to the parts. In other words, the listener uses what they know of the context of communication to predict what the message will contain, and uses parts of the message to confirm, correct or add to this. The key process here is inference. ${ }^{35}$

Kline adds the learner about process of listening, there are four kinds, the process moves through of first three steps receiving, attending, and understanding in sequence. Responding and or remembering may or may not follow. They are:

1. Receiving

This is an easy step of listening. Receiving means that getting message from the sender to the receivers. To complete the process of the receiving messages, actually senders have to use some effective techniques to organize and support their message. The subject should be interesting to receiver.
2. Attending

An attending is the process of accurately identifying and interpreting particular sounds we hear have no meaning until we give them their meaning in context.
3. Understanding

An understanding or comprehensions is shared meaning between parties in a communication transaction and constitutes the first step in the listening process.
4. Responding

The listening process may end with understanding, since effective communication and effective listening may be defined as the accurate sharing or understanding of meaning. But a response may be needed or at least helpful to complete the communication.

[^16]
## 5. Remembering

Memorization of facts is not the key to good listening. Yet memory is often a necessary and integral part of the listening process. ${ }^{36}$

Based on experts, process of listening they are bottom-up, topdown, receiving, attending, understanding, responding, and remembering. From the explanation above is the processing of listening. All the process of listening depend of expert reader can use to daily activity or when do listening task at school or doing TOEFL is very useful.

## g. Strategies of Listening

According to Ellis and Brewster in Darwissyah and Nunun journal state some listening strategies in listening a story as follows;

1. Predicting: it is useful to encourage children to predict what they think might come next in a story.
2. Inferring opinion or attitude: An awareness of stress, intonation and body language-such as facial expressions or gesture- will help the children work out if a character is angry, happy, sad and so on. This contributes to understand the story.
3. Working out from context: Although keywords might be glossed before the story is told, children need to be encouraged to use pictures and their general knowledge about a topic to work out the meaning of unfamiliar words.
4. Recognizing discourse patterns and markers (such first, then, finally, or: but, then, so) gives important signals about what is coming next in a story. ${ }^{37}$
[^17]So, from the strategies of listening above, it can be conclude that strategies can be used in listen a story.

## h. Material of Teaching Listening

There are many common topics in English book that used for tenth grade SMA/MA/SMK/MAK, It divides into fifteen chapters. But the researcher used the topic for the even semester. such as: My Idol, The Battle of Surabaya, B.J.Habibie, Cut nyak Dien, Issumboshi, Malin kundang, The Wight brother, Strong wind, You've Got a Friend. ${ }^{38}$ Based on the syllabus curriculum for tenth grade, this research took Malin Kundang on chapter 12.

From the curriculum, the material of listening is narrative text is Malin Kundang. In this research, the researcher wants to know the students ability in listening skill. Based on the material is narrative text by match the word, where the students listen to audio or speaker and True\False the test. The title of the material is Malin Kundang.

[^18]
## Chapter 12

## Malin Kundang



1) The example of learning material based on the handbook.

## THE LEGEND OF MALIN KUNDANG

A long time ago, in a small village near the beach in West Sumatra lived a woman and her son, Malin Kundang. Malin Kundang and his mother had to live hard because his father had passed away when he was a baby. Malin Kundang was a healthy, dilligent, and strong boy. He usually went to sea to catch fish. After getting fish he would bring it to his mother, or sell the caught fish in the town.

One day, when Malin Kundang was sailing, he saw a merchant's ship being raided by a band of pirates. With his bravery, Malin Kundang helped the merchant defeat the pirates. To thank him, the merchant allowed Malin Kundang to sail with him. Malin Kundang agreed in the hope to get a better life. He left his mother alone.

Many years later, Malin Kundang became wealthy. He had a huge ship and a lot of crews who worked loading trading goods. He was also married to a beautiful woman. When he was sailing on his trading journey, his ship landed on a coast near a small village. The local people recognized that it was Malin Kundang, a boy from the area. The news ran fast in the town; "Malin Kundang has become rich and now he is here".

An old woman, who was Malin Kundang's mother, ran to the beach to meet the new rich merchant. She wanted to hug him to release her sadness of being lonely after a long time. When his mother came near him, Malin Kundang who was with his beautiful wife and his ship crews denied that she was his mother. She had pleaded Malin Kundang to look at her and admit that she was her mother. But he kept refusing to do it and yelling at her. At last Malin Kundang said to her "Enough, old woman! I have never had a mother like you, a dirty and ugly woman!" After that he ordered his crews to set sail to leave the old woman who was then full of sadness and anger. Finally, feeling enraged, she cursed Malin Kundang that he would turn into a stone if he didn't apologize to her. Malin Kundang just laughed and set sail. Suddenly a thunderstorm came in the quiet sea, wrecking his huge ship. He was thrown out to a small island. It was really too late for him to avoid his curse; he had turned into a stone.

Taken with adaptation from: http://understandgtext.blogspot.com/2009/05/
2) The exercises of listening ${ }^{39}$

Complete the following sentences using the words in the box. If needed, you may change the parts of speech.

3. The $\qquad$ would avoid any confrontation with large units of enemy troops, but seek and eliminate small groups of soldiers to minimize losses.
4. In the past, the $\qquad$ class ruled the society. Their words were listened, followed and applied by people.
5. During the earthquake, the troops are busy helping people to move. They $\qquad$ women, old people and children to the prepared shelter.
6. When people go to $\qquad$ , their intention is not to get wealth or worldly materials. They do it for the sake of God.
7. The hijackers finally $\qquad$ to the police but they make three demands for the government to fulfill.
8. One may not $\qquad$ his/her own country. If $s /$ he does that, s/he should get a harsh punishment.
9. After a long investigation, he $\qquad$ that she was innocent.
10. The man got four year's imprisonment for $\qquad$ a police officer. The punishment was given to make him feel a deep regret for having done such a cruel behavior.
11. Upon returning back from a long journey to Europe, she lake her ownership of the pretty house next to the lake.
12. He died as a $\qquad$ in the war against Dutch colonization.
13. "No more $\qquad$ ." she said to herself after realizing that the man she loved and she expected to come back was a bandit.
14. He can't $\qquad$ the temptation to pickpocket every time she is in the mall.
15. As an $\qquad$ she cannot return back to her own town.

[^19]
## B. Review of Related Finding

In this research, the research was related to some researchers below:

The first, research done by Saadilah that her research can be concluded that there is a significant correlation between students' vocabulary mastery and listening ability. ${ }^{40}$

The second, Nurani based on the result calculating data, there was significant correlation between students‘ vocabulary mastery and listening skill at the fourth Semester students in English Department of IAIN Antasari Academic Year 2012/2013. The calculating of product moment by getting the correlation shows that rxy is 0.0 .394 . For $\mathrm{N}=108, \mathrm{r}$ table in $5 \%$ fault is 0.195 and in $1 \%$ fault is 0.254 . It appears that rxy is more than $r$ table. The hypothesis $\left(\mathrm{H}_{0}\right)$ is denied and hypothesis $\left(\mathrm{H}_{\mathrm{a}}\right)$ is accepted. ${ }^{41}$ It means there is the correlation positive and low category between vocabulary mastery and listening skill.

The third reseach done by Khairani, that the result of correlation coefficient significant of students‘ listening habit to English songs and vocabulary mastery to writing skill showed that F0 (20.678) is higher than Ft (3.28) at the level of significance $\alpha=0.05$ and df for $\mathrm{n}=33$ is 3.28 . It

[^20]can be concluded that the coefficient correlation is significant. ${ }^{42}$ It means there is the significant correlation between students‘ listening habit to English songs and vocabulary mastery toward writing skill.

Then, Rahman concluded his research was proved by the value of ryx was greater than r table. The correlation between $\mathrm{X} 1 \rightarrow \mathrm{Y}(\mathrm{ryx} 1)$ has a value is 0.98 , the correlation between $\mathrm{X} 2 \rightarrow \mathrm{Y}$ (ryx2) has a value is 0.99 , the correlation between $\mathrm{X} 1 \rightarrow \mathrm{X} 2(\mathrm{rx} 1 \mathrm{x} 2)$ has a value is 0.97 , and the correlation between $\mathrm{X} 1 \rightarrow \mathrm{X} 2 \rightarrow \mathrm{Y}(\mathrm{rx} 1 \mathrm{x} 2 \mathrm{y})$ has a value is 0.99 . That has very high reliability. ${ }^{43}$ It means there is the significant of this research.

So, based on the related findings above, it is known that there are variations in the result of vocabulary mastery between listening skill. Therefore, this research made by researcher to complete the researchers above. So, in this study the researcher tried to examine the students vocabulary mastery between listening skill at the tenth grade Students. Researcher assummed that there is the significant correlation between students vocabulary mastery and listening skill.

## C. Frame Work of Thinking

Listening is an important skill that must be mastered by the students. In the listening process, the students do not only hearing the sound of the speaker but they also need to know the context and

[^21]understand about the speakers‘ aims. By mastering listening will be able in building a good communication.

Vocabulary is components of language that contain information about the meaning and use of words in language. By the vocabulary will be able to mastery the English.

The role of listening skill is vocabulary mastery by describes word in audio record. Especially, catch or recognize the words and sentences said by the speaker. As we know in listening skill must be know the vocabulary. Without vocabulary, the students cannot be able to evaluate and comprehend all information. It means that vocabulary is very important in listening skill.

Mastering vocabulary helps students in communication whether as the listener or speaker. In listening students who have rich vocabulary will have less difficulty in catching new word or phrase. To improve listening skill, students are to require having mastery the vocabulary.

Based on explanation above, it can be assume that there is correlation between vocabulary mastery and listening skill.

| Vocabulary Mastery <br> (Variable X) |
| :--- | :--- |

Figure 1 The Correlation Between Vocabulary Mastery and Listening Skill.

## D. Hypothesis

Based on the frame of thinking above, the researcher formulates the hypothesis as follow:

1. Alternative Hypothesis (Ha): There is a correlation between student's mastery in vocabulary and listening skill of the student at the tenth grade students of Madradah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.
2. Null Hypothesis (Ho): there is no correlation between student‘s mastery in vocabulary and listening skill of the student at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.

## CHAPTER III

## RESEARCH METHODOLOGY

## A. Place and Time of the Research

The research was done at Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu, that is located in Jl. Lintas Sumatera, Manunggang Julu, Padangsidimpuan Tenggara, Padangsidimpuan, North Sumatera.

The time of the research was done from April 2021 until August 2022.
B. Research Method

Kind of this research is quantitative research. Lodico said, -all quantitative research approaches summarize results numerically. However, the approaches differ in their goals and the procedures used to collect datall. ${ }^{44}$ It means the research which related with the numerical called quantitative research, and all of them have different in goal and procedure.

In this research the research correlated vocabulary mastery and listening skill. Lodico also said, -Correlational research is a quantitative method designed to show the relationships between two or more variablesll. ${ }^{45}$ Moreover according to Fraenkel and Wallen -the purpose of correlation research is to clarify understanding of important phenomena by

[^22]identifying relationships among variablell. ${ }^{46}$ It can be said the research is to determine whether any correlation or not between two variable.

The method of this research used descriptive method. According to Nazir, -Descriptive method is a method which describes the status of people, an object, a set of conditions, a system of thought or class of events in the present time naturallyll. ${ }^{47}$ The method is used to describe the correlation between vocabulary mastery and listening skill.

## C. Population and Sample

1) Populasi

According to Arikunto, -population is the total number of the students or the subject of researchll. ${ }^{48}$ It supported by Kothari, -population is the total of items about which information is desired\|. ${ }^{49}$ The population of this research was all students of the tenth grade at Madrasah Aliyah Islamic Boarding School of Al-Ansor Manunggang Julu. The population is below:

[^23]Table 1
The Population of the Tenth Grade Students of Madrasah Aliyah Islamic Boarding School of Al-Ansor Manunggang Julu

| No | Grade | Population |
| :---: | :---: | :---: |
| 1 | X-A | 34 |
| 2 | X-B | 30 |
| 3 | X-C | 28 |
| Total |  | 92 |

Source: School Administration Data of Madrasah Aliyah Islamic Boarding School of Al-Ansor Manunggang Julu.
2) Sample

Sample is the part of the population. It is the part of quantity and characteristic of the population. Next, sample is a part of the population, it must be representative. ${ }^{50}$ In this research, the sample use probablity sampling which is random sampling.

Based on Sugiyono, -Simple random sampling used when the sample is homogen and sample taking without looking of the levels in the population. $\|^{51}$ To take the sample, this research uses Slovin's formula which explain as follow:

$$
n=\frac{\mathrm{N}}{\mathrm{n}+\mathrm{N} e^{2}}
$$

Where:
$\mathrm{n}=$ The total of the sample
$\mathrm{N}=$ Total of population
$\mathrm{e}=$ The limit of error tolerance.
So, this research uses formula above to determine the sample size, with the limit of error tolerance $10 \%$ as follows:

[^24]$$
\mathrm{N}=92
$$
$\mathrm{e}=10 \%(0,1)$
$\mathrm{n}=\ldots$ ?
$n=\frac{92}{1+92.0,1^{2}}$
$n=\frac{92}{1+92 \times 0,01}$
$n=\frac{92}{1+0,92}$
$n=\frac{92}{1,92}$
$\mathrm{n}=47.91$ rounded to 48 .
The sample of this research is showed below:
Table 2
Sample of the Tenth Grade Students of Madrasah Aliyah Islamic Boarding School of Al-Ansor Manunggang Julu

| No | Grade | Population | Sample |
| :---: | :---: | :---: | :---: |
| 1. | X-A | 34 Students | 18 Students |
| 2. | X-B | 30 Students | 16 Students |
| 3. | X-C | 28 Students | 14 Students |
| Total |  | 92 Students | 48 Students |

## D. Definition of Operational Variables

1) Vocabulary

Vocabulary is a collection of words that pay attention to social functions, text structure and linguistic elements related to people, activities, actions, and events in the past.
2) Listening

Listening is the process of understanding the various meaning and information. So that the students are able to remember, identify, interpret and assess the meaning of the communication delivered.

## E. Instrument of the Research

Instrument is the important thing in a research. Suharsimi says that -instrument is a tool to help the researcher in collecting the data easier and systematicallyll. ${ }^{52}$ The quality of instrument will establish the quality of the data. The instrument for collecting data is test. Based on the source of research, this research will use the test as instrument for collecting data.

1) Test

Test is some of questions and other tools which used to measure skills, knowledge and intelligences ability. The test is multiple choice that usually consist of a question or statement to which students ${ }^{\text {c }}$ respond by selecting the best answer among the number of choices. And match test is an objective test consisting of two sets of items to be matched with each other for a specified attribute.

This research used multiple choise and match the words test to get information about students vocabulary mastery. There are some indicators that used by the research to measure the students‘ vocabulary mastery in narrative text the story of Malin Kundang. It can be seen in the table of the test indicators.

[^25]Table 3. Table Indicators of Vocabulary Mastery

| No | Indicators | Items | Number of Items | Score |
| :---: | :---: | :---: | :---: | :---: |
| 1 | The use of the vocabulary | 25 | $\begin{gathered} 1,2,3.4,5,6,7,8,9,10 \\ 11,12,13,14,15,16,17 \\ 18,19,20,21,22,23,24,25 \end{gathered}$ | 50 |
| 2 | The meaning of the words in the text | 25 | $\begin{gathered} 26,27,28,29,30,31,32, \\ 33,34,35,36,37,38,39, \\ 40,41,42,43,44,45,46, \\ 47,48,49,50 \end{gathered}$ | 50 |
|  | Total | 50 | 50 | 100 |

For the listening skill test, this research used multiple choice and essay test. Essay is group of paragraph written about single topic and central main idea. To test the students listening skill by used a laptop as a media to turn the test, the test will turn three times. There are some indicators that used by the researcher to measure the students listening skill in narrative text the story of Malin Kundang. It can be seen in the table of the test indicators.

Table 4
Table Indicators of Listening Skill

| No | Indicators | Sub <br> Indicators | Items | Number of <br> Items | Score |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Words | Synonyms | 5 | $1,2,4,6,10$ | 10 |  |  |  |  |
|  | Antonyms | 5 | $3,5,7,8,9$ | 10 |  |  |  |  |  |
| 2 | Sentence | Past Tense | 5 | $10,11,12,13$, <br> 14,15 | 10 |  |  |  |  |
| 3 | Main Idea | Main idea in <br> story | 5 | $16,17,18,19$, <br> 20 | 10 |  |  |  |  |
| 4 | Detailed <br> Information | Who was <br> involved | 1 | 23 | 10 |  |  |  |  |
|  | What <br> happened | 2 | 21,22 | 30 |  |  |  |  |  |
|  | Where it <br> happened | 1 | 24 | 10 |  |  |  |  |  |
|  | When it <br> occurred | 1 | 25 | 10 |  |  |  |  |  |
| Total |  |  |  |  |  |  | 25 | 25 | 100 |

Question number 1-20 (easy category) with a score 2
Question number 21-22 (difficult category) with a score 15
Question number 23-25 ( medium category) with a score 10.
From the indicators table of vocabulary above, the score is $\frac{B}{N}$ x100, where $B$ is the number of items answered correctly and $N$ is number of itemsll. ${ }^{53}$ Scoring is a method of evaluating students‘ work that requires assigning a separate score for each dimension of a task. To find out the scores of the students answer, the researcher gives 2 score from each item. So, the maximum of test was 100 .

## F. Validity and Reliability Instrument

Validity and reliability is the important thing toward the research. On this research there were two instruments that had been identified the validity and reliability, as follow:

1) Validity

Validity is to see the correctness an instrument to do the function to measure. Ary at.al states -validity is the extent to which a test measures what it claims to measuresll. ${ }^{54}$ In this research, the validity of instrument utilized for test.

The validity of listening skill used the construct validity. Construct validity is a test validity based on the judgement of the experts. In this case, expert would be given opinion about the instrument, what is the

[^26]instrument can be used or still need improving, or may be the instrument is failed. The researcher would use multiple choices test and match test. To make it sure, the researcher would consult to the English teacher of Madrasah Aliyah Islamic Boarding School of AlAnsor Manunggang Julu and lecturer who teaches in English department of State Institute for Islamic Studies Padangsidimpuan.

The researcher used the content and item validity to find out the validity of instrument for vocabulary test. Item validity is a part of the test as a totally to measure the test by the items. The test consisted of 60 that will be validated in other sample. To get the validity of the each test will be refer to list r biserial with $\mathrm{r} 5 \%$ significant level was 0.349 and $1 \%$ significant level was 0.449 . So, the test is categorized valid if the $\mathrm{r}_{\text {count }}>\mathrm{r}_{\text {table }}$.

To get the validity of test, the formula of $r$ Point bi serial can be used as follow:

$$
\mathrm{r}_{\mathrm{pbi}}=\frac{p-M_{t}}{S D_{t}} \sqrt{\frac{\bar{p}}{q}}
$$

## Where:

$\mathrm{r}_{\mathrm{pbi}}$ : coefficient item validity
$\mathrm{M}_{\mathrm{p}}$ : mean score
$\mathrm{M}_{\mathrm{t}}$ : mean score of the total score
$\mathrm{SD}_{\mathrm{t}}$ : standard deviation of the total score
p : presentation of the right answer of the item tested validity q: presentation of the wrong of the tested validity. ${ }^{55}$
2) Reliability

An instrument of the research must be reliable. According to Donal Ary, -Reliability is the extent to which the test measures accurately

[^27]and consistentlyll. ${ }^{56}$ The instrument was said reliable when the instrument believable to use as an instrument of collecting data because the instrument is good.

The listening skill test was categorized reliable, because this instrument based on expert. The reliability of the test can be found by using K-R formula. The formula is as follow:

$$
\mathrm{R}^{11}=\left(\frac{n}{n-1}\right)\left(\frac{S_{t^{2}-\sum p q}}{S_{t^{2}}}\right)
$$

## Where:

$\mathrm{R}_{11}$ : Reliability of the Instrument
N : Total of Question
$\mathrm{St}^{2}$ : Variants Total
P: Proporsi Subject who is Right Answer
N
q : Proporsi Subject who is Wrong Answer
N
Reliability is a good character of the test that refers to the consistency of the measurement. The test is reliable if $r_{\text {count }}>r_{\text {table }}$ using formulation KR-20.

## G. Technique of Collecting Data

The systematic procedures of the test are; the first, the researcher came to the school and take permission to the head master and English teacher to do the research at the school and after taking permission, the researcher

[^28]enter to the class say greetings to the students and tell what the researcher wants to do in the class after saying the aim of the researcher, the researcher give a vocabulary mastery test and listening skill test to the students_ at the tenth grade Madrasah Aliyah Islamic Boarding School of Al-Ansor Manunggang Julu. The second, for vocabulary mastery test, researcher give two hours for respondent to answer the entire question. And for listening skill test, researcher turn the test by used a laptop for listening test where the test turns three times. Then, Order the students_ to listen the test that researcher turns. After that, give chance to students to check their answer sheet before collecting it. And then, Researcher collect listening skill test from students. Next, researcher appraise the result of test and the finally the researcher analyze the result of test.

## H. Technique of Data Analysis

After the processed of data collection, the researcher analysed the data by using quantitative data. Analysis data means the process of calculation and arrangement systematically of the data was done by researcher. In quantitative research the most suitable analysis was using the statistical process and with following steps.

1. Identify and correct the answer and subject research from the test.
2. Identify mean, median and modus by using descriptive statistic to arrange and categorize the score of variable X and Y . It is the second ways of presenting the data analysis. According to Anas Sudijono, the three formula above had been explained below:
a. Know the mean (average) score by using the formula:

$$
(x)=\frac{\sum f x}{N}
$$

b. Know the median score by using the formula:

$$
M e=L+\left(\frac{\frac{1}{2} n-f k b}{f \mathrm{i}}\right) x \mathrm{i}
$$

c. Know the modus of score by useing the formula:

Table 5
The Table Interpretation of Means Score

| No | Interval | Predicate |
| :---: | :---: | :---: |
| 1 | $80-100$ | Very Good |
| 2 | $70-79$ | Good |
| 3 | $60-69$ | Enough |
| 4 | $50-59$ | Low |
| 5 | $0-49$ | Fail |

Source: Nana Sudjana and Ibrahim, Penelitian dan Penilaian Pendidikan.
3. Identify the Normality Test

Normality test is used to know whether the data of research is normal or not. To know the normality, the researcher use chi-square formula. The formula is as below:

$$
\mathrm{x}^{2}=\sum\left(\frac{(\mathrm{fo}-\mathrm{fh} h}{\mathrm{fo}}\right) 2
$$

## Where:

$$
\begin{aligned}
& \mathrm{x}^{2}=\text { Value of Chi-square } \\
& f_{o}=\text { Observed Frequency }
\end{aligned}
$$

[^29]$$
f_{e}=\text { Expected Frecuency. }
$$

## 4. To Test Hypothesis

To know the correlation between variable X and Y was calculated by applying product moment formula. The formula of product moment explained below:

$$
\mathrm{r}_{\mathrm{xy}}=\frac{\left(\sum \mathrm{KF}\right)-\left(\sum \mathrm{K}\right) x\left(\sum \mathrm{~F}\right)}{\sqrt{{ }^{*} N \sum \mathrm{~K}^{2}-\left(\sum \mathrm{K}\right)^{2}+{ }^{*} N \sum \mathrm{~F}^{2}-\left(\sum \mathrm{F}\right)^{2}+}}
$$

Where:

$$
\begin{array}{ll}
\mathrm{r}_{\mathrm{xy}} & =\text { Coefficient correlation between variable } \mathrm{X} \text { and } \mathrm{Y} \\
\mathrm{X} & =\text { The scores of variable } \mathrm{X} \\
\mathrm{Y} & =\text { The scores of variable } \mathrm{Y} \\
\mathrm{XY} & =\text { Product } \mathrm{X} \text { and } \mathrm{Y} \\
\mathrm{~N} & =\text { Total of sample }
\end{array}
$$

5. To examine the significances variable

To examine the significances variable X and Y will calculate by:

$$
T=\frac{r x y \sqrt{n-1}}{\sqrt{1-(r x y)^{2}}}
$$

## Where:

$$
\begin{aligned}
& \mathrm{T}=\text { Result of } \mathrm{t} \text { - test } \\
& \mathrm{N}=\text { Total of sample } \\
& \mathrm{r}_{\mathrm{xy}}=\text { Coefficient correlation between } \mathrm{X} \text { and } \mathrm{Y}^{59}
\end{aligned}
$$

6. To know the contribution of coefficient determination variables

To know the contribution of coefficient correlation between variables X and Y . it can be define the formula determinant correlation:

$$
C D=r^{2} \times 100 \%
$$

[^30]
## Where:

$$
\mathrm{CD}=\text { Contribution of coefficient determination }
$$

$$
\mathrm{R}=\text { Coefficient correlation. }
$$

The result should be appropriated with the interpretation to the index correlation of product moment, the interpretation of the result can be seen in the following table.

Table 6
The Table Interpretation of Pearson Correlation Analysis
(XY).

| Product Moment | Interpretation |
| :---: | :---: |
| Between $0.00-0.20$ | Very Low |
| Between $0.20-0.40$ | Low |
| Between $0.41-0.70$ | Enough |
| Between $0.71-0.90$ | High |
| Between $0.91-1.00$ | Very High |

Source: Sugiyono, Statistika untuk penelitian. ${ }^{60}$

[^31]
## CHAPTER IV

## THE RESULT OF RESEARCH

In this chapter, the research discussed the result of this research about the correlation between vocabulary mastery and listening skill at tenth grade students of Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu. This research has calculated the data by using descriptive method. Applying the quantitative analysis, the research used the formulation $-\mathbf{r} \|$ product moment. Then describe the data as follow:

## A. The Description of Data

The data were described by sequence of variables and description of the research of result from variable ( X ) was vocabulary mastery and variable ( Y ) was listening skill. In this part, the researcher showed the result or score of both of the variable.

## 1. Vocabulary Mastery

After calculating the score, it was gotten that the highest score was 80 and the lowest score was 30 . To complete this research data, the researcher also calculated the mean score was 57.83, the median score was 66.83 , and the mode was 63.21 (see in appendix 9). Mean score is the score which represent the general value that was achieved by the students. Median is the middle score or score which divided a distribution of data into equal part and mode is the score which has the most frequency.

So, the score resume of variable X that vocabulary mastery of the tenth grade students of Madrasah Aliyah Islamic Boarding School AlAnsor Manunggang Julu has been gotten as table below:

## Table 7

The Score Resume of Student's Vocabulary Mastery

| No | Statistic | Variable |
| :---: | :---: | :---: |
| 1 | High Score | 80 |
| 2 | Low Score | 30 |
| 3 | Range | 50 |
| 4 | Interval | 8 |
| 5 | Mean Score | 57.83 |
| 6 | Median Score | 66.83 |
| 7 | Mode | 63.21 |

Based on the above table, it showed that mean was 57.83. It means that the students vocabulary mastery was in low category. The revelation of data was done to group the variable score of vocabulary mastery which the total classes 7 and interval 8.

Table 8
The Frequency Distribution of Vocabulary Mastery

| Interval | Mid Points | Frequency | Percentage |
| :---: | :---: | :---: | :---: |
| $30-37$ | 33 | 4 | $8.33 \%$ |
| $38-45$ | 41 | 5 | $10.41 \%$ |
| $46-53$ | 49 | 3 | $6.25 \%$ |
| $54-61$ | 57 | 18 | $37.5 \%$ |
| $62-69$ | 65 | 11 | 22.91 |
| $70-77$ | 73 | 2 | $4.16 \%$ |
| $78-85$ | 81 | 5 | $10.41 \%$ |
| Total |  | $\mathbf{4 8}$ | $\mathbf{1 0 0 \%}$ |

Based on the above chart, it was known that the variable revelation of students vocabulary mastery showed that the respondent in interval
$30-37$ were 4 students ( $8.33 \%$ ), interval $38-45$ were 5 students ( $10.41 \%$ ), interval $46-53$ were 3 students ( $6.25 \%$ ), interval 54-61 were 18 students ( $37.5 \%$ ), interval $62-69$ were 11 students ( $22.91 \%$ ), interval $70-77$ were 2 students (4.16\%), interval $78-85$ were 5 students (10.41\%).

In order to get a description of the data clearly and completely, the researcher presents them in histogram on the following figure:


Figure 1: The Histogram of Vocabulary Mastery
2. Listening Skill

The score resume of variable $Y$ that student's listening skill of the tenth grade students of Madrasah Aliyah Islamic Boarding School AlAnsor Manunggang Julu has been gotten as table below:

Table 9
The Score Resume of Student's Vocabulary Mastery

| No | Statistic | Variable |
| :---: | :---: | :---: |
| 1 | High Score | 75 |
| 2 | Low Score | 28 |
| 3 | Range | 47 |
| 4 | Interval | 7 |
| 5 | Mean Score | 52.66 |
| 6 | Median Score | 60.16 |
| 7 | Mode | 60.4 |

Based on the above table, the researcher has gotten the highest score was 75 , the lowest score was 27 , mean score was 52.66 , median score was 60.16, and mode score was 60.4 (see in appendix 10). The calculation of mean score at students listening skill was in low category. The revelation of data was done to group the variable score of listening skill which the total classes 7 and interval 7.

Then, the computed of the frequency distribution of the student's score of group can be applied in to table frequency distribution os follow:

Table 10
The Frequency Distribution of Student's Listening Skill

| Interval | Mid Points | Frequency | Percentage |
| :---: | :---: | :---: | :---: |
| $28-34$ | 31 | 3 | $6.25 \%$ |
| $35-41$ | 38 | 6 | $12.5 \%$ |
| $42-48$ | 45 | 7 | $14.58 \%$ |
| $49-55$ | 52 | 12 | $25 \%$ |
| $56-61$ | 59 | 10 | $20.83 \%$ |
| $62-68$ | 65 | 6 | $12.5 \%$ |
| $69-75$ | 72 | 4 | $8.33 \%$ |
| Total |  | $\mathbf{4 8}$ | $\mathbf{1 0 0 \%}$ |

Based on the above chart, it was known that the variable revelation of students listening skill showed that the respondent an interval 27 34 were 3 students ( $6.25 \%$ ), interval $35-41$ were 6 students ( $12.5 \%$ ), interval 42 - 48 were 7 students (14.58\%), interval 49- 55 were 12 students ( $25 \%$ ), interval $56-61$ were 10 students (20.83\%), interval $62-68$ were 6 students ( $12.5 \%$ ), interval $69-75$ were 4 students (8.33\%).

In order to get a description of the data clearly and completely, the researcher presents them in histogram on the following figure:

## Frekuency



Figure 2: The Histogram of Listening Skill

## B. Analysis of the Data

## 1. Normality Test

After getting the resume score of variable X and Y , the data were analysed by using Chi-Square formula to know the data were normal or not. Normality test was as the requirement of test before going to the hypothesis testing.

Table 11
Normality of Data X and Data Y

| Class | Normality <br> Test |  |
| :---: | :---: | :---: |
|  | $\mathrm{t}_{\text {count }}$ | $\mathrm{t}_{\text {table }}$ |
| Data X | 3.45 | 12.592 |
| Data Y | 8.85 | 12.592 |

Based on the table above, the score of data $X=x^{2}{ }_{\text {count }}<x^{2}$ table ( $3.45<12.592$ ) with $\mathrm{n}=48$ and data $\mathrm{Y}=\mathrm{x}^{2}$ count $<\mathrm{x}_{\text {able }}^{2}(8.85<12.592)$ with $n=48$, on $5 \%$ significant level. It meant that data X and Y were distributed normal (see in appendix 15).

## 2. Hypothesis Testing

The aim of hypothesis testing was to determine the correlation between vocabulary mastery and listening skill at tenth grade students of Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu by using the product moment formula. Before testing hypothesis, first performed the calculation of the score obtained by the respondents as the table below:

$$
\begin{array}{ll}
\sum \mathrm{X}=2802 & \sum \mathrm{Y}=2578 \\
\sum \mathrm{X}^{2}=171124 & \sum \mathrm{Y}^{2}=145313 \\
\sum \mathrm{XY}=156290 &
\end{array}
$$

By using the values above, calculated the value of correlation between variable X and Y explained below:

$$
\begin{aligned}
\mathrm{r}_{\mathrm{xy}} \quad & =\frac{\mathrm{n} \sum \mathrm{XY}-\left(\sum \mathrm{X}\right)\left(\sum \mathrm{Y}\right)}{\sqrt{n^{*} \sum \mathrm{X}^{2}-\left(\sum \mathrm{X}\right)^{2}+^{*} \mathrm{\sum} \mathrm{Y}^{2}-\left(\sum \mathrm{Y}\right)^{2}+}} \\
& =\frac{48(156290)-(2802)(2578)}{\sqrt{{ }^{*} 48 \times 171124^{2}-(2802)^{2}+^{*} 48 \times 145313^{2}-(2578)^{2+}}} \\
& =\frac{7502920-7223556}{\sqrt{* 8213953-7851204+^{*} 6975024-6646084^{+}}} \\
& =\frac{427054}{\sqrt{(1002351)(808775)}} \\
& =\frac{427054}{\sqrt{810676025430}} \\
& =\frac{427054}{9003375716} \\
& =0.474
\end{aligned}
$$

Ha : there is a significant correlation between students‘ vocabulary mastery and listening skill of the tenth grade students of Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu.

Based on the above calculating, the product moment has gotten coefficient correlation $\mathrm{r}_{\mathrm{xy}}=0.474$ was higher than $\mathrm{r}_{\text {table }}=0.368$ on $5 \%$ significant level. The hypothesis $\left(\mathrm{H}_{0}\right)$ was accepted namely $\mathrm{r}_{\text {count }}>\mathrm{r}_{\text {table }}$ (0.474 > 0.368). The result showed that there was a significant correlation between vocabulary mastery and listening skill of the tenth
grade students of Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu in enough category. It has been written in the table of coefficient correlation interpretation below:

Table 12
Categories Value correlation Coefficient and Degree
Correlation

| The Value | Degree |
| :---: | :---: |
| Between $0.00-0.20$ | Very Low |
| Between $0.20-0.40$ | Low |
| Between $0.41-0.70$ | Enough |
| Between $0.71-0.90$ | High |
| Between $0.91-1.00$ | Very High |

Testing the truth of significant used the formulate $\mathrm{t}_{\text {count }}$.

$$
\begin{aligned}
\mathrm{T}_{\text {count }} & =\frac{r \sqrt{n-1}}{\sqrt{1-r^{2}}} \\
& =\frac{0.474 \sqrt{48-1}}{\sqrt{1-0.474^{2}}} \\
& =\frac{0.474 \sqrt{47}}{\sqrt{1-0.224^{2}}} \\
& =\frac{0.474(6.855)}{\sqrt{0.776}} \\
& =\frac{3249}{\sqrt{0.880}} \\
& =3.692
\end{aligned}
$$

Based on the calculation above, the researcher found that $\mathrm{t}_{\text {count }}=$ 3.692, $\mathrm{df}=\mathrm{n}-2(48-2=46)$ and $\mathrm{t}_{\text {table }}$ on $5 \%$ significant level $=2.02$. so, $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}(3.692>2.02)$. it meant that there was a significant correlation between two variables that it was said that validity of the contribution of variable X to variable Y was -acceptedll.

To look for the contribution of variable X to variable Y as follows:
CD = The score of coefficient determination
r = The score of the coefficient correlation
CD $=r^{2} \times 100 \%$
$=(0.474)^{2} \times 100 \%$
$=0,224 \times 100 \%$
$=22 \%$
Based on calculating above, the contribution variable X (Vocabulary Mastery) toward variable Y (Listening Skill) there was $22 \%$ and $78 \%$ influenced by other variable.

## C. The Discussion of Result

Based on the result of this research, the researcher has proven that the students‘ vocabulary mastery and listening skill. It supports on the theory that states at previous chapter findings. As Nurani showed that there was significant correlation between students‘ vocabulary mastery and listening skill at the fourth Semester students in English Department of IAIN Antasari Academic Year 2012/2013. The calculating of product moment by getting the correlation shows that rxy is 0.0 .394 . For $\mathrm{N}=108$, r table in $5 \%$ fault is 0,195 and in $1 \%$ fault is 0.254 . It appears that rxy is more than r table. The hypothesis $\left(\mathrm{H}_{0}\right)$ is denied and hypothesis $\left(\mathrm{H}_{\mathrm{a}}\right)$ is accepted. ${ }^{61}$ It means there is the positive correlation and low category between vocabulary mastery and listening skill.

[^32]Khairani on her result of correlation coefficient significant of students‘ listening habit to English songs and vocabulary mastery to writing skill showed that F 0 (20.678) is higher than Ft (3.28) at the level of significance $\alpha=0.05$ and df for $\mathrm{n}=33$ is 3.28 . It can be concluded that the coefficient correlation is significant. ${ }^{62}$ It means there is the significant correlation between students listening habit to English songs and vocabulary mastery toward writing skill.

Then, Rahman concluded his research that was proved by the value of ryx was greater than $r$ table. The correlation between (ryx1) has a value is 0.98 , and the correlation between (ryx2) has a value is 0.99 , and the correlation between (rx1x2) has a value is 0.97 , and the correlation between (rx1x2y) has a value is 0.99 . That has very high reliability. ${ }^{63}$ It means there is the significant of this research.

The researcher compares it with the result on research of related findings: the first, the research done by Nurani who found that there was significant correlation between students‘ vocabulary mastery and listening skill. Since the correlation coefficient obtained 0.394 is higher than the table value 0.254 , it means that there is a significant positive correlation

[^33]between the two variables and the correlation is considered to be substantial. ${ }^{64}$

Based on explanation above, it was proved that this research have the result almost same with other research. So, it is clearly vocabulary mastery have the significant correlation to students‘ listening skill. Vocabulary mastery is needed and really important in listening skill.

The last, it was supported by this research and it was proved by testing hypothesis of the research, it is found that vocabulary mastery have the significant correlation to students listening skill at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu. This fact can be seen from $\mathrm{r}_{\text {count }}>\mathrm{r}_{\text {table }}(3.692>2.02)$.

## D. Threats of Research

The researcher limits this research, as follow:

1. The researcher gives the questionnaire and test to sample and explains them about the instruction.
2. The researcher does not know how serious and concentrated the students when they were answering the test
3. The researcher does not see the measuring honest aspect of the students in answering the test until possibility the students cheat or guess.
4. There is no the original data from the teacher that showed the original score that the students got for one semester.
[^34]
## CHAPTER V

## THE CONCULATIONS AND SUGGESTIONS

## A. Conclusions

After getting the result of research data, the research came to describe the data as follow:

1. The students vocabulary mastery at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu was -lowll with the mean score 57.83.
2. The students‘ listening skill at the tenth grade students of Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu was -lowll with the mean score was 52.66 .
3. Based on the result of data analysis, there was a significant correlation between vocabulary mastery and listening skill at tenth grade students of Madrasah Aliyah Islamic Boarding School Al- Ansor Manunggang Julu in enough category. It can be gotten from calculating the product moment formula where coefficient correlation level $\mathrm{r}_{\text {count }}$ was 0.474 and $\mathrm{r}_{\text {table }}$ on $5 \%$ significant level was 0.368 . So, the significant correlation was $0.474>0.386$ ( $\mathrm{r}_{\text {count }}>\mathrm{r}_{\text {table }}$ ). Then, the calculation of the Hypothesis testing has gotten that $\mathrm{t}_{\text {count }}$ was 3.692 with $\mathrm{df}=\mathrm{n}-2(48-$ $2=46)$ and $t_{\text {table }}$ on $5 \%$ signifikan level was 2.02 . So, the significant variables was $3.692>2.02$ ( $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}$ ) and the hypothesis Ha was accepted.

## B. Suggestions

After finishing this research, the researcher got much information in English teaching and learning process. Therefore, the writer has suggestion to:

1. The headmaster of Madrasah Aliyah Islamic Boarding School AlAnsor Manunggang Julu was hopes to support the English teacher to teach well and provide facilities involves with learning English.
2. The English teacher should give motivation to the students and give information about the important in learning English, especially to learn more about vocabulary and listening. The result of this research can be consideration and additional information for other research who will conduct any further in the same field.
3. Theoretically, the result of this research provided English teacher, especially the English teacher of the school where the writer carried out this research. A reflection of their achievement of the teaching and learning process of English; in addition, practically, the result of this research prompt the English teacher the alternative instruction that will be able to increase and improve students‘ vocabulary mastery and listening skill. the research hopes that the result of this research expected to have contribution for development of English teaching, to give information to the reader about the correlation between vocabulary mastery and listening skill at Madrasah Aliyah Islamic Boarding School Al-Ansor Manunggang Julu.

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## Appendix 1

## INSTRUMENT FOR VOCABULARY MASTERY

Information: This test just to know your vocabulary mastery and there is no effect in your appraisal in final examination of this school.

Name:
Class:
Direction : choose the correct answer from the option $\mathrm{a}, \mathrm{b}, \mathrm{c}$, or d !

1. Thomas $\qquad$ the competition in a National Olimpiade. He looks very happy.
a. Jumped
c. lost
b. Celebrated
d. won
2. Choose the best vocabulary from the sentence, a long time ago on the island of Bali $\qquad$ a gland like creature named Kbo Iwo.
a. Live
c. lived
b. Lives
d. leave
3. My frients $\qquad$ by head master came to his office yesterday.
a. Is called
c. was called
b. Have been called
d. were called
4. $\qquad$ saved the money in the bank $\qquad$
a. The woman, every morning
c. The woman, this afternoon
b. The woman, tomorrow
d. The woman, three days ago
5. Choose the best vocabulary from the sentence, my mom wears a $\qquad$ in her neck.
a. Necklace
c. earring
b. Ring
d. bracelet
6. 

We didn't ...... my friends in Medan last month.
a. Visit
c. Visited
b. Visits
d. Visiter
7. My younger brother went to dentist two days ago because his $\qquad$ were in pain.
a. Teeth
c. hands
b. Ears
d. finger
8. The exam was too. $\qquad$ for her. She got an A!
a. Easy
c. difficult
b. Expensive
d. high
9. Linda did not study hard, so she did not $\qquad$ the exam.
a. Study
c. break
b. Pass
d. go
10. Lina $\qquad$ the macth in Olympic games. She is so sad.
a. Won
c. jumped
b. Lost
d. celebrated
11. She ran away into the jungle last morning. What is the meaning of word -jungle\|?
a. Sungai
c. hutan
b. Kerajaan
d. pohon
12. She live with her aunt and uncle because he parrens were dead. Choose the best meaning of word -dead\|
a. Liburan
c. bekerja
b. Meninggal
d. tertidur
13. My parents did the business jurney. What is the meaning of word -business jurneyll?
a. Berbisnis
c. perjalanan bisnis
b. Berkarya
d. berlibur
14. Long and short are?
a. Synonym
c. have the same meaning
b. Antonym
d. no one correct
15. A school is the place where students study with their teachers. The meaning of word -studyll is
a. Bekerja
c. bermain
b. Belajar
d. mengajar
16. The exam was too easy for her. She got an A. The meaning of word -easyll is
a. Mudah
c. tinggi
b. Susah
d. sedang
17. Big and large are?
a. Synonym
c. no one correct
b. Antonym
d. correct
18. The meaning of the -humblell is
a. Rendah hati
c. ramah
b. Jujur
d. baik
19. He made funny faces and made the children laugh. What is the meaning of word -funnyll?
a. Lucu
c. senang
b. Sedih
d. imut
20. She has long and curly hair. What is the meaning of word \|curly\|?
a. Keriting
c. gelombang
b. Lurus
d. rontok

Direction : Complete the blank words by choosing the correct answer in the multiple!

Once upon the time, there was a (21)...... Who was living in field. He (22)...... Some gardening and fishing for his daily life. One day, while the mas was do fishing, he caught a (23) ..... did in his trap. It was the biggest catch which he had (24) $\qquad$ in his life. Surprisingly, this fish turned in to a (25)

| 21. a. woman | b. man | c. old woman | d. old man |
| :--- | :--- | :--- | :--- |
| 22. a. farming | b. businessman | c. trader | d. bodyguard |
| 23. a. big | b. small | c. biggest | d. smallest |
| 24. a. sardines | b. catfish | c. golden fish | d. parrot fish |
| 25. a. handsome | b. beautiful princes | c. ugly princes | d. bad princes |

Direction: Macth the words with the Indonesian equivalents below:

| 26. Farmer | a. berlayar |
| :--- | :--- |
| 27. Fisher | b. mengendarai |
| 28. King | c. petani |
| 29. Castle | d. raja |
| 30. Sail | e. nelayan |
| 31. Drive | f. berani |
| 32. Difficult | g. kuat |
| 33. Quiet | h. susah |
| 34. Angry | i. diam |
| 35. Beautiful | j. kesehatan |
| 36. Bad | k. marah |
| 37. Brave | l. cantik |
| 38. Strong | m. sombong |
| 39. Healthy | n. buruk |
| 40. Arrogant | o. istana |

Direction : Complete the vocabularies below using letter to make a correct words!
41. Q_ick
42. Sl_w
43. _gly
44. G_od
45. B_g
46. Sma
47. P_lac_
48. Anim_ls
49. P_opl_
50. _ri_nd

Validator
Researcher

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## Appendix 2

## Key words

| 1. d | 21. b | 41. Quick |
| :---: | :---: | :---: |
| 2. c | 22. a | 42. Slow |
| 3. a | 23. a | 43. Ugly |
| 4. d | 24. c | 44. Good |
| 5. a | 25. b | 45. Big |
| 6. c | 26. c | 46. Small |
| 7. a | 27. e | 47. Palace |
| 8. a | 28. d | 48. Animal |
| 9. b | 29. o | 49. People |
| 10. b | 30. a | 50. Friend |
| 11. c | 31. b |  |
| 12. b | 32. h |  |
| 13. c | 33. i |  |
| 14. b | 34. k |  |
| 15. b | 35.1 |  |
| 16. a | 36. n |  |
| 17. b | 37. f |  |
| 18. c | 38. g |  |
| 19. a | 39. j |  |
| 20. a | 40.m |  |

## Appendix 3

## INSTRUMENT FOR LISTENING SKILL

Information: This test just to know your listening skill and there is no effect in your appraisal in final examination of this school.

Direction: Listen carefully to the audio and question and question on the recording and then choose the best answer to the question. For questions (1-20) are choose the best one answer, $\mathrm{a}, \mathrm{b}, \mathrm{c}$, or d, and number (21-25) are write the answer of the questions. Thus question are 25 items and you have 45 minutes to answer all the questions

Name:
Class:

1. Listen to the audio and choose the best grammatical in this sentence, -When malin kundang was $\qquad$ he saw a merchant_s shipll.
a. Sailing
b. Sails
c. Sail
d. Sailed
2. What is the main idea of paragraph 1 ?
a. A long time ago, in a small village near the beach in west Sumatra lived a woman and her son, malin kundang.
b. Malin kundang and his mother lived hard
c. Malin kundang was healthy boy
d. Malin kundang did not admit the old woman
3. Malin kundang was a healthy boy. What is the antonym of the word -healthyll?
a. Sick
b. Angry
c. Hungry
d. Diligent
4. Listen to the audio and fill in the blank of the sentence best on your haering. -He usually $\qquad$ to the sea to catch fish.\|
a. When
b. Went
c. Wear
d. Weren't
5. What is the synonym of the wordllpeoplell?
a. Human
b. Humble
c. Parents
d. Woman
(Listen carefully of the audio and choose the antonym of the bold words, -Malin kundang was a (6) diligent and (7) strong boy.\|
6. 

a. Smart
b. Crazy
c. Lazy
d. Cleaver
7. a. Weak
b. Wrong
c. Stronger
d. Strongest
8. What is the main idea of paragraph 2 ?
a. Merchant ship was big
b. Malin kundang help a merchant ship from the pirates
c. A small pirates
d. Merchant ship was full of loading
9. Listen to the audio choose the best vocabulary that related to make this sentence is good, -an old woman who was malin kundang's mother ran to the beach to meet a new rich merchant she want to $\qquad$ ..|
a. Huge
b. Hugged
c. Hug
d. Huger
10. Listen to the audio of the sentence and choose the best antonym of word -smalll. A long time ago, in a small village near the beach.
a. Big
b. Biggest
c. Smallest
d. Smaller
11. What is the main idea in paragraph 3 ?
a. Malin kundang became wealthy
b. He left his mother alone
c. He usually went to sea to catch the fish
d. Malin kundang and his mother lived hard
12. Listen to the audio and fill in the blank of the sentence best on your haering.\|she had ...... malin kundang to recognize he as his mother.\|
a. Pleaded
b. Pleades
c. Plead
d. Pleads
13. What is the main idea in paragraph 4 ?
a. Malin kundang's mother ran to the beach to meet the new rich merchant.
b. He cried because missed his mother a lot.
c. Malin kundang become wealthy until finally he came back to his village and his mother heard the news of his arrival.
d. He was sailing on his trading journey in small village.

Questions for (14-15). Listen to the audio and choose the synonym of the bold words, he had a huge (14) ship an a lot of crews who worked loading trading (15) good.
14. a. sailing
b. merchant
c. crews
d. pirates
15. a. bad
b. quiet
c. calm
d. well
16. What is the synonym of the wordllbeautifull?
a. Handsome
b. Pretty
c. Ugly
d. Bad
17. What is the antonym of the word -old\|?
a. Young
b. Older
c. Oldest
d. Youngest
18. What is the synonym of the -sadnesslll?
a. Happy
b. Un happy
c. Sad
d. Very happy
19. Listen to the audio and choose the best grammatical in the sentence. -he was $\qquad$ out to a small island.\|
a. Thrown
b. Curse
c. Huge
d. Went
20. What is the moral of the story?
a. Respect to our parents, especially our mother
b. Don't be greedy
c. Work hard until you wealth
d. Live your own village and built a new live in other town

Direction: listen carefully of the audio and answer the question below:
21. What happened many years after malin kundang join the sail?
22. What happened with malin kundang after her mother cursed him?
23. Who is the main character of the story?

24 . Where the stories come from?
25. When malin kundang had turned into a stone?

## Validator

Researcher

## Winriani, S.Pd.

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## Appendix 4

## Key words

| 1.a | 11. a |
| :--- | :--- |
| 2.a | 12. a |
| 3.a | 13. a |
| 4.b | 14. a |
| 5.a | 15. d |
| 6.c | 16. b |
| 7.a | 17. a |
| 8.b | 18. b |
| 9.c | 19. a |
| 10.a | 20. a |

## Essav:

21. He became arrogant.
22. Malin kundang had turned into a stone.
23. Malin kundang
24. West Sumatera
25. When malin kundang ordered his crews to set sail to leave the old woman who was then full of sadness and anger.

| NO | Item |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 6 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 13 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 15 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 18 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 19 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 20 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| $\begin{aligned} & \mathrm{n}= \\ & 20 \end{aligned}$ | 16 | 16 | 16 | 13 | 13 | 13 | 13 | 13 | $\begin{array}{\|l\|} \hline 1 \\ \hline \end{array}$ | 13 | 13 | 18 | 17 | 12 | 12 | 10 | 10 | 16 | 16 | 11 | 11 | 16 | 13 | 16 | 13 | 19 | 13 | 16 |
| p | 0,8 | 0,8 | 0,8 | 0,8 | 0,7 | 0,7 | 0,7 | $\begin{aligned} & \hline 0, \\ & 7 \end{aligned}$ | $\begin{aligned} & 0, \\ & 7 \end{aligned}$ | 0,7 | 0,7 | 0,9 | 0,9 | 0,6 | 0,4 | 0,5 | 0,5 | 0,8 | 0,8 | 0,9 | 0,9 | 0,6 | 0,7 | 0,8 | 0,7 | $\begin{gathered} 0,9 \\ 5 \end{gathered}$ | 0,7 | 0,2 |
| q | 0,2 | 0,2 | 0,2 | 0,2 | 0,4 | 0,4 | 0,4 | $\begin{gathered} \hline 0, \\ 4 \end{gathered}$ | $\begin{aligned} & 0, \\ & 4 \end{aligned}$ | 0,4 | 0,4 | 0,1 | 0,2 | 0,4 | 0,6 | 0,5 | 0,5 | 0,2 | 0,2 | 0,1 | 0,1 | 0,5 | 0.4 | 0,2 | 0,4 | $\begin{gathered} 0,0 \\ 5 \end{gathered}$ | 0,4 | 0,8 |


| 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |  | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 14 | 14 | 16 | 16 | 16 | 16 | 16 | 16 | 11 | 11 | 10 | 16 | 10 | 16 | 16 | 16 | 16 | 16 | 12 | 19 | 16 | 16 | 12 | 10 | 16 | 19 | 16 | 16 |
| $\begin{aligned} & \hline 0 . \\ & 6 \end{aligned}$ | $\begin{aligned} & 0 . \\ & 6 \end{aligned}$ | $0 .$ | $\begin{aligned} & 0 . \\ & 8 \end{aligned}$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ | $0 .$ | $\begin{aligned} & \hline 0 . \\ & 8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.5 \\ & 5 \end{aligned}$ | $\begin{aligned} & 0.5 \\ & 5 \end{aligned}$ | $\begin{aligned} & 0 . \\ & 5 \end{aligned}$ | $0 .$ | $\begin{aligned} & \hline 0 . \\ & 5 \end{aligned}$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ | $\begin{array}{\|l\|} \hline 0 . \\ 8 \\ \hline \end{array}$ | $0 .$ | $0 .$ | $\begin{aligned} & 0.9 \\ & 5 \end{aligned}$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ | $\begin{array}{\|l\|} \hline 0 . \\ 8 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 0 . \\ 8 \\ \hline \end{array}$ | $0 .$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ | $\begin{aligned} & 0.9 \\ & 5 \end{aligned}$ | $0 .$ | $\begin{aligned} & \hline 0 . \\ & 8 \end{aligned}$ |
| $\begin{aligned} & 0 . \\ & 4 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0 . \\ & 4 \\ & \hline \end{aligned}$ | $0 .$ | $\begin{aligned} & 0 . \\ & 2 \end{aligned}$ | $0$ | $0 .$ | $0 .$ | $\begin{array}{\|l\|} \hline 0 . \\ 2 \end{array}$ | 0.4 | 0.4 | $\begin{aligned} & 0 . \\ & \hline 0 \end{aligned}$ | $0 .$ | $\begin{aligned} & 0 . \\ & \hline 5 \end{aligned}$ | $0$ | $0$ | $0$ | $\begin{array}{\|l\|} \hline 0 . \\ 2 \end{array}$ | $\begin{array}{\|l\|} \hline 0 . \\ \hline \end{array}$ | $0 .$ | 0.5 | $\begin{aligned} & 0 . \\ & 2 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 0 . \\ 2 \end{array}$ | $\begin{array}{\|l\|} \hline 0 . \\ 2 \end{array}$ | $\begin{array}{\|l\|} \hline 0 . \\ \hline \end{array}$ | $0 .$ | 0.5 | $\begin{aligned} & 0 . \\ & 2 \end{aligned}$ | $0 .$ |


| 57 | 58 | 59 | 60 | XT | XT 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | 1 | 1 | 55 | 3025 |
| 1 | 1 | 1 | 1 | 58 | 3364 |
| 1 | 1 | 1 | 1 | 48 | 2304 |
| 1 | 1 | 1 | 1 | 50 | 2500 |
| 0 | 0 | 0 | 0 | 30 | 900 |
| 0 | 0 | 0 | 0 | 52 | 2704 |
| 1 | 1 | 1 | 1 | 58 | 3364 |
| 0 | 0 | 0 | 0 | 36 | 1294 |
| 1 | 1 | 1 | 1 | 58 | 3364 |
| 1 | 1 | 1 | 1 | 58 | 3364 |
| 1 | 1 | 1 | 1 | 58 | 3364 |
| 1 | 1 | 1 | 1 | 50 | 2500 |
| 0 | 0 | 0 | 0 | 53 | 2809 |
| 1 | 1 | 1 | 1 | 53 | 2809 |
| 1 | 1 | 1 | 1 | 28 | 1444 |
| 1 | 1 | 1 | 1 | 55 | 3025 |
| 1 | 1 | 1 | 1 | 56 | 3136 |
| 1 | 1 | 1 | 1 | 60 | 3481 |
| 1 | 1 | 1 | 1 | 55 | 3025 |
| 1 | 1 | 1 | 1 | 32 | 1024 |
| 16 | 16 | 16 | 16 | 1468 | 120940 |
| 0.8 | 0.8 | 0.8 | 0.8 |  |  |
| 0.2 | 0.2 | 0.2 | 0.2 |  |  |

## Appendix 6

## Calculation of the formulation $\mathbf{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{g}{\mathrm{q}}}$

## A. Calculation of Vocabulary Mastery

1. Mean score from score total $\left(\mathbf{M}_{\mathbf{t}}\right)$
$\mathrm{M}_{\mathrm{t}}=\frac{\sum \mathrm{Xt}}{N}$
$\mathrm{M}_{\mathrm{t}}=\frac{1468}{20}=73.4$
2. Standard Deviation $\left(S_{t}\right)$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{\sum_{N}^{\mathrm{Xt}}-\left(\mathrm{EXt}_{N}\right.}{ }^{2}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{\frac{120940}{20}-\left(\frac{1468}{20}\right)^{2}}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{6047-(73.4)^{2}}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{6047-5387.56}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{659.44}$
$\mathrm{SD}_{\mathrm{t}}=25.67$

## 3. Mean Score $\left(\mathrm{M}_{\mathrm{p}}\right)$

Item 1

$$
\begin{aligned}
& \mathrm{M}_{\mathrm{P} 1}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 1} \\
& \mathrm{M}_{\mathrm{P} 1}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+50+30+50}{16} \\
& \mathrm{M}_{\mathrm{P} 1}=\frac{1321}{16}=82.56
\end{aligned}
$$

Item 2
$\mathrm{M}_{\mathrm{P} 2}=\frac{\text { total score of students }{ }^{\text {s score that true item answer }}}{n 2}$
$\mathrm{M}_{2}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+30+58}{16}$
$\mathrm{M}_{\mathrm{P} 2}=\frac{1285}{16}=80.31$
Item 3
$\mathrm{M}_{\mathrm{P} 3}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 3}$
$\mathrm{M}_{\mathrm{P} 3}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+30+58}{16}$
$\mathrm{M}_{\mathrm{P} 3}=\frac{1285}{16}=80.31$
Item 4
$\mathrm{M}_{\mathrm{P} 4}=\frac{\text { total score of } \text { students }^{F} \text { score that true item answer }}{n 4}$

```
\(\mathrm{M}_{\mathrm{P} 4}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55}{13}\)
\(\mathrm{M}_{\mathrm{P} 4}=\frac{1090}{13}=80.31\)
```


## Item 5

$\mathrm{M}_{\mathrm{P} 5}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 5}$
$\mathrm{M}_{\mathrm{P} 5}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55}{13}$
$M_{P 5}=\frac{1090}{13}=80.31$
Item 6
$\mathrm{M}_{\mathrm{P} 6}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 6}$
$\mathrm{M}_{\mathrm{P} 6}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55}{13}$
$M_{P 6}=\frac{1090}{13}=80.31$
Item 7
$\mathrm{M}_{\mathrm{P} 7}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 7}$
$\mathrm{M}_{\mathrm{P} 7}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55}{13}$
$M_{P 7}=\frac{1090}{13}=80.31$

## Item 8

$M_{\text {P8 }}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 8}$
$\mathrm{M}_{\mathrm{P} 8}=\frac{55+55+59+56+55+53+28+53+58+58+58+38+50+58+55+30}{16}$
$M_{P 8}=\frac{1227}{16}=76.68$

## Item 9

$\mathrm{M}_{\mathrm{P} 9}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 9}$
$\mathrm{M}_{\mathrm{P} 9}=\frac{55+55+59+56+55+53+53+58+58+58+50+55}{12}$
$M_{P 9}=\frac{1000}{12}=83.33$

## Item 10

$\mathrm{M}_{\mathrm{P} 10}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 10}$
$\mathrm{M}_{\mathrm{P} 10}=55+55+59+56+55+53+53+58+58+58+50+55$
$\mathrm{M}_{\mathrm{P} 10}=\frac{1000}{12}=83.33$

## Item 11

$\mathrm{M}_{\mathrm{P} 11}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 11}$
$\mathrm{M}_{\mathrm{P} 11}=\frac{55+55+59+56+55+53+53+58+58+58+50+55}{12}$
$\mathrm{M}_{\mathrm{P} 11}=\frac{1000}{12}=83.33$

## Item 12

$\mathrm{M}_{\mathrm{P} 12}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 12}$
$\mathrm{M}_{\mathrm{P} 12}=\underline{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}$ 16
$\mathrm{M}_{\mathrm{P} 12}=\frac{1289}{16}=80.56$

## Item 13

$\mathrm{M}_{\mathrm{P} 13}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 13}$
$\mathrm{M}_{\mathrm{P} 13}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$\mathrm{M}_{\mathrm{P} 13}=\frac{1289}{16}=80.56$

## Item 14

$\mathrm{M}_{\mathrm{P} 14}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 14}$
$\mathrm{M}_{\mathrm{P} 14}=\underline{55+55+59+56+55+53+53+58+58+58+50+55}$ 12
$\mathrm{M}_{\mathrm{P} 14}=\frac{1000}{12}=83.33$

## Item 15

$\mathrm{M}_{\mathrm{P} 15}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 15}$
$\mathrm{M}_{\mathrm{P} 15}=\frac{55+55+59+56+55+53+53+58+58+58+50+55}{12}$
$\mathrm{M}_{\mathrm{P} 15}=\frac{1000}{12}=83.33$
Item 16
$\mathrm{M}_{\mathrm{P} 16}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 16}$
$\mathrm{M}_{\mathrm{P} 16}=\frac{55+55+59+56+55+53+53+38+58+28}{10}$
$\mathrm{M}_{\mathrm{P} 16}=\frac{77.6}{10}=7.76$
Item 17
$\mathrm{M}_{\mathrm{P} 17}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 17}$
$\mathrm{M}_{\mathrm{P} 17}=\frac{55+55+59+56+55+53+53+38+58+28}{10}$
$\mathrm{M}_{\mathrm{P} 17}=\frac{77.6}{10}=7.76$

## Item 18

$\mathrm{M}_{\mathrm{P} 18}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 18}$
$\mathrm{M}_{\mathrm{P} 18}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
16
$\mathrm{M}_{\mathrm{P} 18}=\frac{1289}{16}=80.56$

## Item 19

$\mathrm{M}_{\mathrm{P} 19}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 19}$
$\mathrm{M}_{\mathrm{P} 19}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$\mathrm{M}_{\mathrm{P} 19}=\frac{1289}{16}=80.56$
Item 20
$\mathrm{M}_{\mathrm{P} 20}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 20}$
$\mathrm{M}_{\mathrm{P} 20}=\underline{55+55+59+56+55+53+53+58+58+58+50+55}$
11
$\mathrm{M}_{\mathrm{P} 20}=\frac{1023}{11}=965$

## Item 21

$\mathrm{M}_{\mathrm{P} 21}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 21}$
$\mathrm{M}_{\mathrm{P} 21}=\frac{55+55+59+56+55+53+53+58+58+58+50+55}{11}$
11
$\mathrm{M}_{\mathrm{P} 21}=\frac{1023}{11}=965$

## Item 22

$\mathrm{M}_{\mathrm{P} 22}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 22}$
$\mathrm{M}_{\mathrm{P} 22}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$M_{\text {P22 }}=\frac{1289}{16}=80.56$

## Item 23

$\mathrm{M}_{\mathrm{P} 23}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 23}$
$\mathrm{M}_{\mathrm{P} 23}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 23}=\frac{1285}{16}=80.31$

## Item 24

$\mathrm{M}_{\mathrm{P} 24}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 24}$
$\mathrm{M}_{\mathrm{P} 24}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 24}=\frac{1285}{16}=80.31$

## Item 25

$\mathrm{M}_{\mathrm{P} 25}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 25}$
$\mathrm{M}_{\mathrm{P} 25}=\underline{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}$ 16
$\mathrm{M}_{\mathrm{P} 25}=\frac{1285}{16}=80.31$

## Item 26

$\mathrm{M}_{\mathrm{P} 26}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 26}$
$\mathrm{M}_{\mathrm{P} 26}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 26}=\frac{1321}{16}=82.56$

## Item 27

$\mathrm{M}_{\mathrm{P} 27}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 27}$
$\mathrm{M}_{\mathrm{P} 27}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 27}=\frac{1321}{16}=82.56$

## Item 28

$\mathrm{M}_{\mathrm{P} 28}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 28}$
$\mathrm{M}_{\mathrm{P} 28}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$ 16
$M_{\text {P28 }}=\frac{1321}{16}=82.56$

## Item 29

$\mathrm{M}_{\mathrm{P} 29}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 29}$
$\mathrm{M}_{\mathrm{P} 29}=\underline{55+55+59+56+55+53+53+58+58+58+50+55}$
$\mathrm{M}_{\mathrm{P} 29}=\frac{1000}{12}=83.33$

## Item 30

$\mathrm{M}_{\mathrm{P} 30}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 30}$
$\mathrm{M}_{\mathrm{P} 30}=\frac{55+55+59+56+55+53+53+58+58+58+50+55}{12}$
$\mathrm{M}_{\mathrm{P} 30}=\frac{1000}{12}=83.33$
Item 31
$\mathrm{M}_{\mathrm{P} 31}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 31}$
$\mathrm{M}_{\mathrm{P} 31}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 31}=\frac{1285}{16}=80.31$
Item 32
$\mathrm{M}_{\mathrm{P} 32}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 32}$
$\mathrm{M}_{\mathrm{P} 32}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$\mathrm{M}_{\mathrm{P} 32}=\frac{1289}{16}=80.56$

## Item 33

$\mathrm{M}_{\mathrm{P} 33}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 33}$
$\mathrm{M}_{\mathrm{P} 33}=\frac{55+55+59+56+55+53+53+58+58+58+50+55}{13}$
$\mathrm{M}_{\mathrm{P} 33}=\frac{1090}{13}=83.84$

## Item 34

$\mathrm{M}_{\mathrm{P} 34}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 34}$
$\mathrm{M}_{\mathrm{P} 34}=\frac{55+55+59+56+55+53+53+58+58+58+50+55}{13}$
$\mathrm{M}_{\mathrm{P} 34}=\frac{1090}{13}=83.84$
Item 35
$\mathrm{M}_{\mathrm{P} 35}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 35}$
$\mathrm{M}_{\mathrm{P} 35}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 35}=\frac{1285}{16}=80.31$

## Item 36

$\mathrm{M}_{\mathrm{P} 36}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 36}$
$\mathrm{M}_{\mathrm{P} 36}=\underline{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}$ 16
$\mathrm{M}_{\mathrm{P} 36}=\frac{1285}{16}=80.31$

## Item 37

$\mathrm{M}_{\mathrm{P} 37}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 37}$
$\mathrm{M}_{\mathrm{P} 37}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$ 16
$\mathrm{M}_{\mathrm{P} 37}=\frac{1285}{16}=80.31$

## Item 38

$\mathrm{M}_{\mathrm{P} 38}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 38}$
$\mathrm{M}_{\mathrm{P} 38}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 38}=\frac{1285}{16}=80.31$

## Item 39

$\mathrm{M}_{\mathrm{P} 39}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 39}$
$\mathrm{M}_{\mathrm{P} 39}=\frac{55+55+59+56+55+53+53+38+58+28}{10}$
$\mathrm{M}_{\mathrm{P} 39}=\frac{77.6}{10}=7.76$
Item 40
$\mathrm{M}_{\mathrm{P} 40}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 40}$
$\mathrm{M}_{\mathrm{P} 40}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 40}=\frac{1285}{16}=80.31$

## Item 41

$\mathrm{M}_{\mathrm{P} 41}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 41}$
$\mathrm{M}_{\mathrm{P} 41}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 41}=\frac{1321}{16}=82.56$

## Item 42

$\mathrm{M}_{\mathrm{P} 42}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 42}$
$\mathrm{M}_{\mathrm{P} 42}={ }^{55+55+59+56+55+53+53+38+58+28}$
10
$\mathrm{M}_{\mathrm{P} 42}=\frac{77.6}{10}=7.76$

## Item 43

$\mathrm{M}_{\mathrm{P} 43}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 43}$
$\mathrm{M}_{\mathrm{P} 43}=\frac{55+55+59+56+55+53+53+38+58+28}{10}$
$\mathrm{M}_{\mathrm{P} 43}=\frac{77.6}{10}=7.76$

## Item 44

$\mathrm{M}_{\mathrm{P} 44}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 44}$
$\mathrm{M}_{\mathrm{P} 44}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 44}=\frac{1285}{16}=80.31$

## Item 45

$\mathrm{M}_{\mathrm{P} 45}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 45}$
$\mathrm{M}_{\mathrm{P} 45}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$\mathrm{M}_{\mathrm{P} 45}=\frac{1289}{16}=80.56$
Item 46
$\mathrm{M}_{\mathrm{P} 46}=\frac{\text { total score of students }{ }^{F} \text { Fscore that true item answer }}{n 46}$
$\mathrm{M}_{\mathrm{P} 46}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$\mathrm{M}_{\mathrm{P} 46}=\frac{1289}{16}=80.56$
Item 47
$\mathrm{M}_{\mathrm{P} 47}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 47}$
$\mathrm{M}_{\mathrm{P} 47}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$\mathrm{M}_{\mathrm{P} 47}=\frac{1289}{16}=80.56$

## Item 48

$\mathrm{M}_{\mathrm{P} 48}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 48}$
$\mathrm{M}_{\mathrm{P} 48}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58+50+50+32}{19}$
$\mathrm{M}_{\mathrm{P} 48}=\frac{1280}{19}=72.63$

## Item 49

$\mathrm{M}_{\mathrm{P} 49}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 49}$
$\mathrm{M}_{\mathrm{P} 49}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 49}=\frac{1285}{16}=80.31$

## Item 50

$\mathrm{M}_{\mathrm{P} 50}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 50}$
$\mathrm{M}_{\mathrm{P} 50}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 50}=\frac{1285}{16}=80.31$

## Item 51

$\mathrm{M}_{\mathrm{P} 51}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 51}$
$\mathrm{M}_{\mathrm{P} 51}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 51}=\frac{1285}{16}=80.31$
Item 52
$\mathrm{M}_{\mathrm{P} 52}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 52}$
$\mathrm{M}_{\mathrm{P} 52}=\frac{55+55+59+56+55+53+53+38+58+28}{10}$
$\mathrm{M}_{\mathrm{P} 5}=\frac{77.6}{10}=7.76$

## Item 53

$\mathrm{M}_{\mathrm{P} 53}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 53}$
$\mathrm{M}_{\mathrm{P} 53}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$ 16
$\mathrm{M}_{\mathrm{P} 53}=\frac{1285}{16}=80.31$

## Item 54

$\mathrm{M}_{\mathrm{P} 54}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 54}$
$\mathrm{M}_{\mathrm{P} 54}=55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58+50+50+32$
$\mathrm{M}_{\text {P54 }}=\frac{1280}{19}=72.63$

## Item 55

$\mathrm{M}_{\mathrm{P} 55}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 55}$
$\mathrm{M}_{\mathrm{P} 55}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58+50+50+32}{}$
$\mathrm{M}_{\mathrm{P} 55}=\frac{1280}{19}=72.63$

## Item 56

$\mathrm{M}_{\mathrm{P} 56}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 56}$
$\mathrm{M}_{\mathrm{P} 56}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$M_{\text {P56 }}=\frac{1285}{16}=80.31$

## Item 57

$\mathrm{M}_{\mathrm{P} 57}=\frac{\text { total score of students }{ }^{F_{\text {score that true item answer }}}}{n 57}$
$\mathrm{M}_{\mathrm{P} 57}=\frac{55+55+59+56+55+53+53+58+58+58+50+58+55+50+50+48}{16}$
$\mathrm{M}_{\mathrm{P} 57}=\frac{1285}{16}=80.31$

## Item 58

$\mathrm{M}_{\mathrm{P} 58}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 58}$
$\mathrm{M}_{\mathrm{P} 58}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$M_{\text {P58 }}=\frac{1289}{16}=80.56$
Item 59
$\mathrm{M}_{\mathrm{P} 59}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 59}$
$\mathrm{M}_{\mathrm{P} 59}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$\mathrm{MP59}=\frac{1289}{16}=80.56$

## Item 60

$\mathrm{M}_{\mathrm{P} 60}=\frac{\text { total score of students }{ }^{F} \text { score that true item answer }}{n 60}$
$\mathrm{M}_{\mathrm{P} 60}=\frac{55+55+48+59+56+36+55+55+53+53+58+58+58+38+50+58}{16}$
$M_{P 60}=\frac{1289}{16}=80.56$

## 4. Calculation of the formulation $\mathbf{r}_{\mathrm{pbi}}$

Item 1
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{82.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{8.18}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.318 \times 2=0.636$

## Item 2

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 3

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{74-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.4}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=2.88 \times 2=0.576$
Item 4
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{p b i}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 5

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 6

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 8

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$r_{\text {pbi }}=\frac{76.68-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{3.28}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.012 \times 2=0.024$

## Item 9

$$
\begin{aligned}
\mathrm{r}_{\mathrm{pbi}} & =\frac{M p-M t}{S D t} \sqrt{\frac{-}{\mathrm{q}}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{83.33-73.4}{25.67} \sqrt{\frac{0.6}{0.4}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{9.93}{25.67} \sqrt{1.5} \\
\mathrm{r}_{\mathrm{pbi}} & =0.585 \times 1.224=3.164
\end{aligned}
$$

## Item 10

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{83.33-73.4}{25.67} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{9.93}{25.67} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.585 \times 1.224=3.164$

## Item 11

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{83.33-73.4}{25.67} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{9.93}{25.67} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.585 \times 1.224=3.164$

## Item 12

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 13

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 14

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$

$$
\begin{aligned}
\mathrm{r}_{\mathrm{pbi}} & =\frac{83.33-73.4}{25.67} \sqrt{\frac{0.6}{0.4}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{9.93}{25.67} \sqrt{1.5} \\
\mathrm{r}_{\mathrm{pbi}} & =0.585 \times 1.224=3.164
\end{aligned}
$$

## Item 15

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{83.33-73.4}{25.67} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{9.93}{25.67} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.585 \times 1.224=3.164$

## Item 16

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.76-73.4}{25.67} \sqrt{\frac{0.5}{0.5}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{-65.6}{25.67} \sqrt{1}$
$\mathrm{r}_{\mathrm{pbi}}=-2.55 \times 1=-2.55$
Item 17
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.76-73.4}{25.67} \sqrt{\frac{0.5}{0.5}}$
$r_{p b i}=\frac{-65.6}{25.67} \sqrt{1}$
$\mathrm{r}_{\mathrm{pbi}}=-2.55 \times 1=-2.55$

## Item 18

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 19

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{p b i}=\frac{7.16}{25.67} \sqrt{4}$

$$
\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556
$$

## Item 20

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{965-73.4}{25.67} \sqrt{\frac{0.55}{0.4}}$
$r_{p b i}=\frac{891.6}{25.67} \sqrt{1.62}$
$\mathrm{r}_{\mathrm{pbi}}=34.73 \times 1.62=47.75$

## Item 21

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{965-73.4}{25.67} \sqrt{\frac{0.55}{0.4}}$
$r_{p b i}=\frac{891.6}{25.67} \sqrt{1.62}$
$\mathrm{r}_{\mathrm{pbi}}=34.73 \times 1.62=47.75$

## Item 22

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{p b i}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 23

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$
Item 24
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{p b i}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 25

$$
\begin{aligned}
\mathrm{r}_{\mathrm{pbi}} & =\frac{M p-M t}{S D t} \sqrt{\frac{-}{\mathrm{q}}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{6.91}{25.67} \sqrt{4} \\
\mathrm{r}_{\mathrm{pbi}} & =0.354 \times 2=0.708
\end{aligned}
$$

Item 26
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{82.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{8.18}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.318 \times 2=0.636$

## Item 27

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$r_{\text {pbi }}=\frac{82.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{8.18}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.318 \times 2=0.636$
Item 28
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{82.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{8.18}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.318 \times 2=0.636$

## Item 29

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{83.33-73.4}{25.67} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{9.93}{25.67} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.585 \times 1.224=3.164$

## Item 30

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$

$$
\begin{aligned}
& \mathrm{r}_{\mathrm{pbi}}=\frac{83.33-73.4}{25.67} \sqrt{\frac{0.6}{0.4}} \\
& \mathrm{r}_{\mathrm{pbi}}=\frac{9.93}{25.67} \sqrt{1.5} \\
& \mathrm{r}_{\mathrm{pbi}}=0.585 \times 1.224=3.164
\end{aligned}
$$

## Item 31

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{p b i}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 32

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 33

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{83.84-73.4}{25.67} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{10.44}{25.67} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.406 \times 1.5=0.496$
Item 34
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{83.84-73.4}{25.67} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{10.44}{25.67} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.406 \times 1.5=0.496$

## Item 35

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{p b i}=\frac{6.91}{25.67} \sqrt{4}$

$$
\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708
$$

## Item 36

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 37

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 38

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$
Item 39
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.76-73.4}{25.67} \sqrt{\frac{0.5}{0.5}}$
$r_{p b i}=\frac{-65.6}{25.67} \sqrt{1}$
$\mathrm{r}_{\mathrm{pbi}}=-2.55 \times 1=-2.55$
Item 40
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$
Item 41
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{82.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{8.18}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.318 \times 2=0.636$
Item 42
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.76-73.4}{25.67} \sqrt{\frac{0.5}{0.5}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{-65.6}{25.67} \sqrt{1}$
$\mathrm{r}_{\mathrm{pbi}}=-2.55 \times 1=-2.55$

## Item 43

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.76-73.4}{25.67} \sqrt{\frac{0.5}{0.5}}$
$r_{p b i}=\frac{-65.6}{25.67} \sqrt{1}$
$\mathrm{r}_{\mathrm{pbi}}=-2.55 \times 1=-2.55$
Item 44
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 45

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 46

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$

$$
\begin{aligned}
\mathrm{r}_{\mathrm{pbi}} & =\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{7.16}{25.67} \sqrt{4} \\
\mathrm{r}_{\mathrm{pbi}} & =0.728 \times 2=0.556
\end{aligned}
$$

## Item 47

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 48

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{72.63-73.4}{25.67} \sqrt{\frac{0.95}{0.5}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{-0.88}{25.67} \sqrt{1.9}$
$r_{p b i}=-27.34 \times 1.9=-37.45$

## Item 49

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{p b i}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$
Item 50
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 51

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{\text {pbi }}=\frac{6.91}{25.67} \sqrt{4}$

$$
\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708
$$

## Item 52

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.76-73.4}{25.67} \sqrt{\frac{0.5}{0.5}}$
$r_{\text {pbi }}=\frac{-65.6}{25.67} \sqrt{1}$
$r_{\mathrm{pbi}}=-2.55 \times 1=-2.55$

## Item 53

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$

## Item 54

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{72.63-73.4}{25.67} \sqrt{\frac{0.95}{0.5}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{-0.88}{25.67} \sqrt{1.9}$
$r_{p b i}=-27.34 \times 1.9=-37.45$
Item 55
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{72.63-73.4}{25.67} \sqrt{\frac{0.95}{0.5}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{-0.88}{25.67} \sqrt{1.9}$
$\mathrm{r}_{\mathrm{pbi}}=-27.34 \times 1.9=-37.45$

## Item 56

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}}$
$r_{\mathrm{pbi}}=\frac{6.91}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.354 \times 2=0.708$
Item 57

$$
\begin{aligned}
\mathrm{r}_{\mathrm{pbi}} & =\frac{M p-M t}{S D t} \sqrt{\frac{-}{\mathrm{q}}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{80.31-73.4}{25.67} \sqrt{\frac{0.8}{0.2}} \\
\mathrm{r}_{\mathrm{pbi}} & =\frac{6.91}{25.67} \sqrt{4} \\
\mathrm{r}_{\mathrm{pbi}} & =0.354 \times 2=0.708
\end{aligned}
$$

Item 58
$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{\overline{0.8}}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$

## Item 59

$\mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{\overline{0.8}}{0.2}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4}$
$\mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556$
Item 60

$$
\begin{aligned}
& \mathrm{r}_{\mathrm{pbi}}=\frac{M p-M t}{S D t} \sqrt{\frac{p}{\mathrm{q}}} \\
& \mathrm{r}_{\mathrm{pbi}}=\frac{80.56-73.4}{25.67} \sqrt{\frac{0.8}{0.2}} \\
& \mathrm{r}_{\mathrm{pbi}}=\frac{7.16}{25.67} \sqrt{4} \\
& \mathrm{r}_{\mathrm{pbi}}=0.728 \times 2=0.556
\end{aligned}
$$

## Appendix 7

Table Validity of Vocabulary Mastery

| Number of Items | $\mathbf{M}_{\mathbf{p}}$ | $\mathbf{M t}_{\text {t }}$ | SDt | P | Q | $\begin{aligned} & \mathbf{r}_{\mathbf{p b i}}=\frac{M p-M t}{S D t} \\ & \overline{\bar{p}} \\ & \sqrt{\mathrm{q}} \end{aligned}$ | $\begin{aligned} & \mathbf{r}_{\mathbf{t}} \text { on } 5 \% \\ & \text { Significant } \end{aligned}$ | Interpretation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 82.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.636 | 0.468 | Valid |
| 2 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 3 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 4 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 5 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 6 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 7 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 8 | 76.68 | 73.4 | 25.67 | 0.8 | 0.2 | -0.024 | 0.468 | Invalid |
| 9 | 83.33 | 73.4 | 25.67 | 0.6 | 0.4 | 3.164 | 0.468 | Valid |
| 10 | 83.33 | 73.4 | 25.67 | 0.6 | 0.4 | 3.164 | 0.468 | Valid |
| 11 | 83.33 | 73.4 | 25.67 | 0.6 | 0.4 | 3.164 | 0.468 | Valid |
| 12 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 13 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 14 | 83.33 | 73.4 | 25.67 | 0.6 | 0.4 | 3.164 | 0.468 | Valid |
| 15 | 83.33 | 73.4 | 25.67 | 0.6 | 0.4 | 3.164 | 0.468 | Valid |
| 16 | 7.76 | 73.4 | 25.67 | 0.5 | 0.5 | -225 | 0.468 | Invalid |
| 17 | 7.76 | 73.4 | 25.67 | 0.5 | 0.5 | -225 | 0.468 | Invalid |
| 18 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 19 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 20 | 965 | 73.4 | 25.67 | 0.9 | 0.1 | 47.75 | 0.468 | Valid |


| 21 | 965 | 73.4 | 25.67 | 0.9 | 0.1 | 47.75 | 0.468 | Valid |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 22 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 23 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 24 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 |  |
| 25 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 26 | 82.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.636 | 0.468 | Valid |
| 27 | 82.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.636 | 0.468 | Valid |
| 28 | 82.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.636 | 0.468 | Valid |
| 29 | 83.33 | 73.4 | 25.67 | 0.6 | 0.4 | 3.164 | 0.468 | Valid |
| 30 | 83.33 | 73.4 | 25.67 | 0.6 | 0.4 | 3.164 | 0.468 | Valid |
| 31 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 32 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 33 | 83.84 | 73.4 | 25.67 | 0.6 | 0.4 | 0.496 | 0.468 | Valid |
| 34 | 83.84 | 73.4 | 25.67 | 0.6 | 0.4 | 0.496 | 0.468 | Valid |
| 35 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 36 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 37 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 38 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.78 | 0.468 | Valid |
| 39 | 7.76 | 73.4 | 25.67 | 0.5 | 0.5 | -225 | 0.468 | Valid |
| 40 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Invalid |
| 41 | 82.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.636 | 0.468 | Valid |
| 42 | 7.76 | 73.4 | 25.67 | 0.5 | 0.5 | -225 | 0.468 | Valid |
| 43 | 7.76 | 73.4 | 25.67 | 0.5 | 0.5 | -225 | 0.468 | Invalid |
| 44 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 45 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 46 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 47 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |


| 48 | 72.63 | 73.4 | 25.67 | 0.95 | 0.5 | -225 | 0.468 | Invalid |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 49 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 50 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 51 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 52 | 7.76 | 73.4 | 25.67 | 0.5 | 0.5 | -225 | 0.468 | Invalid |
| 53 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 54 | 72.63 | 73.4 | 25.67 | 0.95 | 0.5 | -0.039 | 0.468 | Invalid |
| 55 | 72.63 | 73.4 | 25.67 | 0.95 | 0.5 | -0.039 | 0.468 | Invalid |
| 56 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 57 | 80.31 | 73.4 | 25.67 | 0.8 | 0.2 | 0.708 | 0.468 | Valid |
| 58 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 59 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |
| 60 | 80.56 | 73.4 | 25.67 | 0.8 | 0.2 | 0.556 | 0.468 | Valid |

From the table above, it can be seen that 10 items was invalid and 50 items was valid. So, the researcher took 50 items for vocabulary test.

## Appendix 8

## Reliability of Adjective Test

To get reliability of the test, the researcher uses formula KR-20
$\mathrm{R}^{11}=(\bar{n})_{1}\left(\frac{S_{t^{2}-\sum p q}}{S_{t^{2}}}\right)$
$\mathrm{N}=20$
$\sum \mathrm{Xt}=1468$
$\sum \mathrm{pq}=120940$
$\mathrm{St}^{2}=\sum \mathrm{Xt}^{2}-\left(\frac{\sum \mathrm{xt}}{N}\right)^{2}$
$=120940-\left(\frac{1468}{20}\right)^{2}=120940-5387.56=417.816$
$\mathrm{St}^{2} \quad=\frac{\sum \mathrm{xt}^{2}}{N}=\frac{417.816}{20}$
$\mathrm{St}^{2}=208908$
$\mathrm{R}{ }^{11}=(\bar{n})_{1}\left(\frac{S_{t^{2}-\sum p q}}{S_{t^{2}}}\right)$
$\mathrm{R}_{11}=\left(\frac{20}{20-1}\right)\left(\frac{208908-20}{208908}\right)$
$\mathrm{R}_{11}=\left(\frac{20}{19}\right)\left(\frac{208.888}{208908}\right)$
$=(1.052)(0.99)$
$=1.06\left(\mathrm{r}_{11}>0.70=\right.$ reliable $)$.
Test is reliable if $\mathbf{r}_{\text {count }}>\mathbf{r}_{\text {table }}$. Based on calculation above, the test have very high reliable.

## Appendix 9

THE RESULT OF THE STUDENTS VOCABULARY MASTERY

| NO | NAME | STUDENTS SCORE |
| :---: | :---: | :---: |
| 1 | AG | 68 |
| 2 | ASN | 44 |
| 3 | ASS | 58 |
| 4 | DAN | 58 |
| 5 | HM | 64 |
| 6 | IM | 48 |
| 7 | I | 40 |
| 8 | LP | 30 |
| 9 | MS | 78 |
| 10 | RM | 68 |
| 11 | RS | 60 |
| 12 | RH | 50 |
| 13 | SS | 68 |
| 14 | SA | 58 |
| 15 | UL | 44 |
| 16 | WH | 30 |
| 17 | AJ | 60 |
| 18 | BT | 60 |
| 19 | DH | 56 |
| 20 | ES | 72 |
| 21 | FS | 60 |


| 22 | HR | 60 |
| :---: | :---: | :---: |
| 23 | IR | 80 |
| 24 | ISB | 64 |
| 25 | IFY | 66 |
| 26 | IM | 58 |
| 27 | KH | 40 |
| 28 | MAS | 64 |
| 29 | MRM | 36 |
| 30 | RF | 60 |
| 31 | YSC | 30 |
| 32 | AJF | 60 |
| 33 | DDF | 78 |
| 34 | FAS | 48 |
| 35 | FDL | 64 |
| 36 | JF | 60 |
| 37 | LA | 78 |
| 38 | MY | 60 |
| 39 | NA | 64 |
| 40 | NF | 60 |
| 41 | MN | 56 |
| 42 | MHD | 58 |
| 43 | RFP | 64 |
| 44 | RR | 80 |
| 45 | R | 72 |


| 46 | VD | 64 |
| :---: | :---: | :---: |
| 47 | WS | 60 |
| 48 | WA | 44 |
|  |  | TOTAL |

## Appendix 10

THE RESULT OF THE STUDENTS LISTENING SKILL

| NO | NAME | STUDENTS SCORE |
| :---: | :---: | :---: |
| 1 | AG | 65 |
| 2 | ASN | 36 |
| 3 | ASS | 59 |
| 4 | DAN | 55 |
| 5 | HM | 61 |
| 6 | IM | 46 |
| 7 | I | 41 |
| 8 | LP | 36 |
| 9 | MS | 75 |
| 10 | RM | 61 |
| 11 | RS | 55 |
| 12 | RH | 30 |
| 13 | SS | 65 |
| 14 | SA | 50 |
| 15 | UL | 36 |
| 16 | WH | 30 |
| 17 | AJ | 75 |
| 18 | BT | 55 |
| 19 | DH | 46 |
| 20 | ES | 61 |
| 21 | FS | 55 |
| 22 | HR | 50 |
| 23 | IR | 68 |
| 24 | ISB | 55 |
| 25 | IFY | 68 |
| 26 | IM | 55 |
| 27 | KH | 41 |
| 28 | MAS | 55 |
| 29 | MRM | 42 |
| 30 | RF | 36 |
| 31 | YSC | 28 |
| 32 | AJF | 60 |
| 33 | DDF | 68 |
| 34 | FAS | 46 |
| 35 | FDL | 55 |
| 36 | JF | 59 |
| 37 | LA | 75 |
| 38 | MY | 55 |
| 39 | NA | 60 |
| 40 | NF | 50 |


| 41 | MN | 47 |
| :---: | :---: | :---: |
| 42 | MHD | 60 |
| 43 | RFP | 60 |
| 44 | RR | 75 |
| 45 | R | 68 |
| 46 | VD | 61 |
| 47 | WS | 46 |
| 48 | WA | 42 |
|  |  | TOTAL |

## Appendix 11

THR RESULT OF VARIABLE X AND Y

| NO | NAME | X | Y |
| :---: | :---: | :---: | :---: |
| 1 | AG | 68 | 65 |
| 2 | ASN | 44 | 36 |
| 3 | ASS | 58 | 59 |
| 4 | DAN | 58 | 55 |
| 5 | HM | 64 | 61 |
| 6 | IM | 48 | 46 |
| 7 | I | 40 | 41 |
| 8 | LP | 30 | 36 |
| 9 | MS | 78 | 75 |
| 10 | RM | 68 | 61 |
| 11 | RS | 60 | 55 |
| 12 | RH | 50 | 30 |
| 13 | SS | 68 | 65 |
| 14 | SA | 58 | 50 |
| 15 | UL | 44 | 36 |
| 16 | WH | 30 | 30 |
| 17 | AJ | 60 | 75 |
| 18 | BT | 60 | 55 |
| 19 | DH | 56 | 46 |
| 20 | ES | 72 | 61 |
| 21 | FS | 60 | 55 |
| 22 | HR | 60 | 50 |
| 23 | IR | 80 | 68 |
| 24 | ISB | 64 | 55 |
| 25 | IFY | 66 | 68 |
| 26 | IM | 58 | 55 |
| 27 | KH | 40 | 41 |
| 28 | MAS | 64 | 55 |
| 29 | MRM | 36 | 42 |
| 30 | RF | 60 | 36 |
| 31 | YSC | 30 | 28 |
| 32 | AJF | 60 | 60 |
| 33 | DDF | 78 | 68 |
| 34 | FAS | 48 | 46 |
| 35 | FDL | 64 | 55 |
| 36 | JF | 60 | 59 |
| 37 | LA | 78 | 75 |
| 38 | MY | 60 | 55 |
| 39 | NA | 64 | 60 |
| 40 | NF | 60 | 50 |


| 41 | MN | 56 | 47 |
| :---: | :---: | :---: | :---: |
| 42 | MHD | 58 | 60 |
| 43 | RFP | 64 | 60 |
| 44 | RR | 80 | 75 |
| 45 | R | 72 | 68 |
| 46 | VD | 64 | 61 |
| 47 | WS | 60 | 46 |
| 48 | WA | 44 | 42 |
| TOTAL |  | 2802 | 2578 |

## Appendix 12

THE CORRELATION BETWEEN VOCABULARY MASTERY AND LISTENING SKILL

| NO | NAME | X | Y | $\mathbf{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | AG | 68 | 65 | 4624 | 4225 | 4420 |
| 2 | ASN | 44 | 36 | 1936 | 1296 | 1584 |
| 3 | ASS | 58 | 59 | 3364 | 3481 | 3422 |
| 4 | DAN | 58 | 55 | 3364 | 3025 | 3190 |
| 5 | HM | 64 | 61 | 4096 | 3721 | 3904 |
| 6 | IM | 48 | 46 | 2304 | 2116 | 2208 |
| 7 | I | 40 | 41 | 1600 | 1681 | 1640 |
| 8 | LP | 30 | 36 | 900 | 1296 | 1080 |
| 9 | MS | 78 | 75 | 6084 | 5625 | 5850 |
| 10 | RM | 68 | 61 | 4624 | 3721 | 4148 |
| 11 | RS | 60 | 55 | 3600 | 3025 | 3300 |
| 12 | RH | 50 | 30 | 2500 | 900 | 1500 |
| 13 | SS | 68 | 65 | 4624 | 4225 | 4420 |
| 14 | SA | 58 | 50 | 3364 | 2500 | 2900 |
| 15 | UL | 44 | 36 | 1936 | 1296 | 1584 |
| 16 | WH | 30 | 30 | 900 | 900 | 900 |
| 17 | AJ | 60 | 75 | 3600 | 5625 | 4500 |
| 18 | BT | 60 | 55 | 3600 | 3025 | 3300 |
| 19 | DH | 56 | 46 | 3136 | 2116 | 2576 |
| 20 | ES | 72 | 61 | 5184 | 3721 | 4392 |
| 21 | FS | 60 | 55 | 3600 | 3025 | 3300 |
| 22 | HR | 60 | 50 | 3600 | 2500 | 3300 |
| 23 | IR | 80 | 68 | 6400 | 4624 | 5440 |
| 24 | ISB | 64 | 55 | 4096 | 3025 | 3520 |
| 25 | IFY | 66 | 68 | 4356 | 4624 | 4488 |
| 26 | IM | 58 | 55 | 3364 | 3025 | 3190 |
| 27 | KH | 40 | 41 | 1600 | 1681 | 1640 |
| 28 | MAS | 64 | 55 | 4096 | 3025 | 3520 |
| 29 | MRM | 36 | 42 | 1296 | 1764 | 1512 |
| 30 | RF | 60 | 36 | 3600 | 1296 | 2160 |
| 31 | YSC | 30 | 28 | 900 | 784 | 840 |
| 32 | AJF | 60 | 60 | 3600 | 3600 | 3600 |
| 33 | DDF | 78 | 68 | 6084 | 4420 | 5304 |
| 34 | FAS | 48 | 46 | 2304 | 2116 | 2208 |
| 35 | FDL | 64 | 55 | 4096 | 3025 | 3520 |
| 36 | JF | 60 | 59 | 3600 | 3481 | 3540 |
| 37 | LA | 78 | 75 | 6084 | 5625 | 5850 |
| 38 | MY | 60 | 55 | 3600 | 3025 | 3300 |
| 39 | NA | 64 | 60 | 4096 | 3600 | 3840 |


| 40 | NF | 60 | 50 | 3600 | 2500 | 3000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | MN | 56 | 47 | 3136 | 2209 | 2632 |
| 42 | MHD | 58 | 60 | 3364 | 3600 | 3480 |
| 43 | RFP | 64 | 60 | 4096 | 3600 | 3840 |
| 44 | RR | 80 | 75 | 6400 | 5625 | 6000 |
| 45 | R | 72 | 68 | 5184 | 4420 | 4896 |
| 46 | VD | 64 | 61 | 4096 | 3721 | 2944 |
| 47 | WS | 60 | 46 | 3600 | 2116 | 2760 |
| 48 | WA | 44 | 42 | 1936 | 1764 | 1848 |
| TOTAL |  | $\sum \mathbf{X = \mathbf { 2 8 0 2 }}$ | $\sum \mathbf{Y = \mathbf { 2 5 7 8 }}$ | $\sum \mathbf{X}^{\mathbf{2}=\mathbf{1 7 1 1 2 4}}$ | $\sum \mathbf{Y}^{\mathbf{2}}=\mathbf{1 4 5 3 1 3}$ | $\sum \mathbf{X Y = 1 5 6 2 9 0}$ |

## Appendix 13

## VARIABLE X

## (VOCABULARY MASTERY)

1. Maximum and minimum score of students were gotten from by setting the variable score from the low to the high score:

| 30 | 30 | 30 | 36 | 40 | 40 | 44 | 44 | 44 | 48 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| 48 | 50 | 56 | 56 | 58 | 58 | 58 | 58 | 58 | 60 |  |
| 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |  |
| 64 | 64 | 64 | 64 | 64 | 64 | 64 | 66 | 68 | 68 |  |
| 68 | 72 | 72 | 78 | 78 | 78 | 80 | 80 |  |  |  |

2. High score $=80$
3. Low score $=30$
4. Range

$$
\begin{aligned}
\mathrm{R} & =\text { High score }- \text { Low score } \\
& =80-30 \\
& =50
\end{aligned}
$$

5. The total of classes $(B K)=1+3.3 \log n$

$$
\begin{aligned}
& =1+3.3 \log (48) \\
& =1+3.3(1.681) \\
& =1+5.547 \\
& =6.547 \\
& =7
\end{aligned}
$$

6. Interval (i)

$$
\mathrm{I}=\frac{\text { Range }}{\begin{array}{l}
\text { Many } \\
\text { class }
\end{array}}=\frac{50}{7}=7.14=8
$$

| No | Class Interval | $\mathbf{F}$ | $\mathbf{X}$ | $\mathbf{F X}$ | $\mathbf{F}_{\text {kb }}$ | $\mathbf{F}_{\text {ka }}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $30-37$ | 4 | 33 | 132 | $\mathrm{~N}=48$ | 4 |
| 2 | $38-45$ | 5 | 41 | 205 | 44 | 9 |
| 3 | $46-53$ | 3 | 49 | 147 | 39 | 12 |
| 4 | $54-61$ | 18 | 57 | 1026 | 36 | 30 |
| 5 | $62-69$ | 11 | 65 | 715 | 18 | 41 |
| 6 | $70-77$ | 2 | 73 | 146 | 7 | 43 |
| 7 | $78-75$ | 5 | 81 | 405 | 5 | $\mathrm{~N}=48$ |
| Total |  |  |  |  |  |  |
| 48 |  |  |  |  |  |  |

7. Mean score
$\mathrm{X}=\frac{\sum_{\mathrm{FX}}}{F}$
$=\frac{2776}{48}$
$=57.83$
8. Median
$\mathrm{Me}=\ell+\left(\frac{2^{\frac{1}{n}-\mathrm{f} k b}}{\mathrm{fi}}\right) \mathrm{xi}$
$\ell=57.83$
fi $=18$
$\mathrm{i}=8$
$\mathrm{F}_{\mathrm{kb}}=36$
$1 / 2 \mathrm{n}=24$
$\mathrm{Me}=\ell+\left(\frac{2^{\frac{1}{n}-\mathrm{f} k b}}{\mathrm{fi}}\right) \mathrm{xi}$
$\mathrm{Me}=61.5+\left(\frac{2^{\frac{48}{2}-36}}{18}\right) \times 8$
$\mathrm{Me}=61.5+\left(\frac{24-36}{18}\right) \times 8$

$$
\begin{aligned}
\mathrm{Me} & =61.5+\left(\frac{-12}{18}\right) \times 8 \\
& =61.5+5.33 \\
& =66.83
\end{aligned}
$$

9. Modus

$$
\begin{aligned}
& \mathrm{Mo}=\ell+\left(\frac{f a}{f a+f b}\right) \times \mathrm{i} \\
& \ell=61.5 \\
& \mathrm{fa}=3 \\
& \begin{aligned}
\mathrm{i} & =8
\end{aligned} \\
& \begin{aligned}
\mathrm{fb} & =11 \\
\mathrm{Mo} & =\ell+\left(\frac{\mathrm{fa}}{\mathrm{fa} a+\mathrm{f} b}\right) \times \mathrm{i}
\end{aligned} \\
& \begin{aligned}
\mathrm{Mo} & =61.5+\left(\frac{3}{14}\right) \times 8 \\
\quad & =61.5+1.71 \\
\quad & =63.21
\end{aligned}
\end{aligned}
$$

## Appendix 14

## VARIABLE Y <br> (LISTENING SKILL)

1. Maximum and minimum score of students were gotten from by setting the variable score from the low to the high score:

| 28 | 30 | 30 | 36 | 36 | 36 | 36 | 41 | 41 | 42 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 42 | 46 | 46 | 47 | 47 | 47 | 50 | 50 | 50 | 55 |
| 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 59 | 59 |
| 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 65 | 65 |
| 68 | 68 | 68 | 75 | 75 | 75 | 75 | 75 |  |  |

2. High score $=75$
3. Low score $=28$
4. Range

$$
\begin{aligned}
\text { R } & =\text { High score }- \text { Low score } \\
& =75-28 \\
& =47
\end{aligned}
$$

5. The total of classes $(B K)=1+3.3 \log n$

$$
\begin{aligned}
& =1+3.3 \log (48) \\
& =1+3.3(1.681) \\
& =1+5.547 \\
& =6.547 \\
& =7
\end{aligned}
$$

6. Interval (i)

$$
\mathrm{I}=\frac{\text { Range }}{\begin{array}{l}
\text { Many } \\
\text { class }
\end{array}}=\frac{47}{7}=6.71=7
$$

| No | Class Interval | $\mathbf{F}$ | $\mathbf{X}$ | $\mathbf{F X}$ | $\mathbf{F}_{\mathbf{k b}}$ | $\mathbf{F}_{\text {ka }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $28-34$ | 3 | 31 | 93 | $\mathrm{~N}=48$ | 3 |
| 2 | $35-41$ | 6 | 38 | 228 | 45 | 9 |
| 3 | $42-48$ | 7 | 45 | 315 | 39 | 16 |
| 4 | $49-55$ | 12 | 52 | 624 | 32 | 28 |
| 5 | $56-61$ | 10 | 59 | 590 | 20 | 38 |
| 6 | $62-68$ | 6 | 65 | 390 | 10 | 44 |
| 7 | $69-75$ | 4 | 72 | 288 | 4 | $\mathrm{~N}=48$ |
| Total | 48 |  |  |  |  |  |

7. Mean score

$$
\begin{aligned}
& \mathrm{X}=\frac{\sum_{\mathrm{FX}}}{F} \\
& =\frac{2528}{48} \\
& =52.66
\end{aligned}
$$

8. Median
$\mathrm{Me}=\ell+\left(\frac{2^{\frac{1}{n}-\mathrm{f} k b}}{\mathrm{fi}}\right) \mathrm{xi}$
$\ell=52.66$
$\mathrm{fi}=12$
$\mathrm{i}=7$
$\mathrm{F}_{\mathrm{kb}}=32$
$1 / 2 n=24$
$\mathrm{Me}=\ell+\left(\frac{2^{\frac{1}{n}-\mathrm{f} k b}}{\mathrm{fi}}\right) \mathrm{xi}$
$\mathrm{Me}=55.5+\left(\frac{\frac{48}{2}-32}{12}\right) \times 7$
$\mathrm{Me}=55.5+\left(\frac{24-32}{12}\right) \times 7$

$$
\begin{aligned}
\mathrm{Me} & =55.5+\left(\frac{-8}{12}\right) \times 7 \\
& =55.5+4.66 \\
& =60.16
\end{aligned}
$$

9. Modus

$$
\begin{aligned}
& \mathrm{Mo}=\ell+\left(\frac{\mathrm{fa}}{\mathrm{fa} a+\mathbf{f} b}\right) \times \mathrm{i} \\
& \ell=55.5 \\
& \mathrm{fa}=7 \\
& \mathrm{i}=7 \\
& \begin{aligned}
& \mathrm{fb}=10 \\
& \mathrm{Mo}=\ell+\left(\frac{\mathrm{fa}}{\mathbf{f a + f}}\right) \times \mathrm{i} \\
& \mathrm{Mo}=55.5+\left(\frac{7}{10}\right) \times 7 \\
& \quad=55.5+4.9 \\
& \quad=60.4
\end{aligned}
\end{aligned}
$$

## Appendix 15

## NORMALITY TEST

## RESULT OF NORMALITY DATA X

| Interval Class | $\mathbf{F}$ | $\mathbf{X}$ | $\mathbf{x}$ | $\mathbf{f x}$ | $\mathbf{x}^{\mathbf{2}}$ | $\mathbf{f x}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $30-37$ | 4 | 33 | +3 | 12 | 9 | 36 |
| $38-45$ | 5 | 41 | +2 | 10 | 4 | 20 |
| $46-53$ | 3 | 49 | +1 | 3 | 1 | 3 |
| $54-61$ | 18 | 57 | 0 | 0 | 0 | 0 |
| $62-69$ | 11 | 65 | -1 | -11 | 1 | 11 |
| $70-77$ | 2 | 73 | -2 | -4 | 4 | 8 |
| $78-85$ | 5 | 81 | -3 | -15 | 9 | 45 |
| $\mathrm{i}=8$ | 48 |  |  | -5 |  |  |

$$
\begin{aligned}
\mathrm{Mx}= & \mathrm{M}^{1}+\mathrm{i} \frac{\sum \mathrm{fx} 1}{N} \\
& =57+8\left(\frac{-5}{48}\right) \\
& =57+8(-0.10) \\
& =57+(-0.8) \\
& =56.2
\end{aligned}
$$

$$
\begin{aligned}
& \mathrm{SD}_{\mathrm{t}}= \mathrm{i} \\
& \frac{\sqrt{\frac{\mathrm{fx}^{\prime} 2}{n}-\left(\frac{\sum \mathrm{fx}^{\prime}}{n}\right)^{2}}}{} \\
&=8 \sqrt{\frac{123}{48}-\left(\frac{-5}{48}\right)^{2}} \\
&=8 \sqrt{2.56-(-0.10)} \\
&=8 \sqrt{2.56-0.01} \\
&=8 \sqrt{2.55}
\end{aligned}
$$

$$
\begin{aligned}
& =8 \times 1.59 \\
& =12.72
\end{aligned}
$$

Table of Normality Data Test with Chi Kuadrad Formula

| Interval <br> of Score | Real <br> upper <br> limit | Z- <br> Score | Limit <br> of <br> Large <br> of the <br> Area | Large <br> of Area | $\mathbf{f}_{\mathbf{h}}$ | $\mathbf{f}_{0}$ | $\frac{(\mathrm{f0}-\mathrm{fh}) 2}{f h}$ |
| :--- | :--- | :--- | :---: | :--- | :--- | :--- | :--- |
| $78-85$ | 85.5 | 2.30 | 0.4893 | 0.03 | 1.44 | 5 | 0.26 |
| $70-77$ | 77.5 | 1.67 | 0.4515 | 0.10 | 4.8 | 2 | 0.16 |
| $62-69$ | 69.5 | 1.04 | 0.3508 | 0.19 | 9.12 | 11 | 0.07 |
| $54-61$ | 61.5 | 0.41 | 0.1591 | 0.57 | 27.36 | 18 | 1.82 |
| $46-53$ | 53.5 | -0.21 | 0.41683 | 0.21 | 10.08 | 3 | 1.04 |
| $38-45$ | 45.5 | -0.84 | 0.20045 | 0.12 | 5.76 | 5 | 0.01 |
| $30-37$ | 37.5 | -1.47 | 0.07078 | 0.04 | 1.92 | 4 | 0.09 |
|  | 30.5 | -2.02 | 0.02169 |  |  |  |  |

Based on the table above, the researcher found that $\mathrm{x}^{2}$ count $=3.45$ while $\mathrm{x}^{2}$ table $=12.592$, cause $\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}^{2}(3.45<12.592)$ with degree of freedom (dk) $=7-1=6$ and significant level $\alpha=5 \%$, distribution of data X (Vocabulary Mastery) is normal.

## Appendix 16

## NORMALITY TEST

RESULT OF NORMALITY DATA Y

| Interval <br> Class | $\mathbf{F}$ | $\mathbf{X}$ | $\mathbf{x}$ | $\mathbf{f x}$ | $\mathbf{x}^{2}$ | $\mathbf{f x}^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $28-34$ | 3 | 31 | +3 | 9 | 9 | 27 |
| $35-41$ | 6 | 38 | +2 | 12 | 4 | 8 |
| $42-48$ | 7 | 45 | +1 | 7 | 1 | 1 |
| $49-55$ | 12 | 52 | 0 | 0 | 0 | 0 |
| $56-61$ | 10 | 59 | -1 | -10 | 1 | 10 |
| $62-68$ | 6 | 65 | -2 | -12 | 4 | 24 |
| $69-75$ | 4 | 72 | -3 | -12 | 9 | 36 |
| $\mathrm{i}=7$ | 48 |  |  | -6 |  | 106 |

$$
\begin{aligned}
& \mathrm{Mx}=\mathrm{M}^{1}+\mathrm{i} \frac{\mathrm{Efx} 1}{N} \\
& =52+7\left(\frac{-6}{48}\right) \\
& =52+7(-0.12) \\
& =52+(-0.84) \\
& =51.16
\end{aligned}
$$

$$
\begin{aligned}
\mathrm{SD}_{\mathrm{t}}= & \mathrm{i} \sqrt{\frac{\sum \mathrm{fx}^{\prime} 2}{n}-\left(\frac{\sum \mathrm{fx}^{\prime}}{n}\right)^{2}} \\
& =7 \sqrt{\frac{106}{48}-\left(\frac{-6}{48}\right)^{2}} \\
& =7 \sqrt{2.20-(-0.12)^{2}}
\end{aligned}
$$

$$
\begin{aligned}
& =7 \sqrt{2.20-0.01} \\
& =7 \sqrt{2.19} \\
& =7 \times 1.47 \\
& =10.29
\end{aligned}
$$

Table of Normality Data Test with Chi Kuadrad Formula

| Interval <br> of Score | Real <br> Upper <br> Limit | Z - <br> Score | Limit of <br> Large of <br> the <br> Area | Large <br> of <br> Area | $\mathbf{f}_{\mathbf{h}}$ | $\mathbf{f}_{\mathbf{0}}$ | $\frac{(\mathrm{f0}-\mathrm{fh}) 2}{f h}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $69-75$ | 75.5 | 2.36 | 0.4909 | 0.23 | 11.04 | 4 | 4.48 |
| $62-68$ | 68.5 | 1.68 | 0.2517 | 0.08 | 3.84 | 6 | 1.21 |
| $56-61$ | 61.5 | 1.00 | 0.3413 | 0.17 | 8.16 | 10 | 0.41 |
| $49-55$ | 55.5 | 0.42 | 0.1628 | 0.56 | 26.88 | 12 | 3.26 |
| $42-48$ | 48.5 | -0.25 | 0.40129 | 0.22 | 10.56 | 7 | 1.20 |
| $35-41$ | 41.5 | -0.93 | 0.17619 | 0.12 | 5.76 | 6 | 0.01 |
| $28-34$ | 34.5 | -1.61 | 0.05370 | 0.03 | 1.44 | 3 | -1.69 |
|  | 28.5 | -2.20 | 0.02275 |  |  |  |  |
|  |  |  |  |  |  |  |  |

Based on the table above, the researcher found that $\mathrm{x}^{2}$ count $=8.85$ while $\mathrm{x}^{2}$ table $=12.592$, cause $\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}^{2}(8.85<12.592)$ with degree of freedom ( dk ) $=7-1=6$ and significant level $\alpha=5 \%$, distribution of data Y (Listening Skill) is normal.

Appendix 17

## Chi-Square Table

| $\mathbf{d k}$ | Significant level |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{5 0 \%}$ | $\mathbf{3 0 \%}$ | $\mathbf{2 0 \%}$ | $\mathbf{1 0 \%}$ | $\mathbf{5 \%}$ | $\mathbf{1 \%}$ |
| $\mathbf{1}$ | 0.455 | 1.074 | 1.642 | 2,706 | 3.841 | 6.635 |
| $\mathbf{2}$ | 1.386 | 2,408 | 3.219 | 4.605 | 5.991 | 9.210 |
| $\mathbf{3}$ | 2.366 | 3.665 | 4.42 | 6.251 | 7.815 | 11.341 |
| $\mathbf{4}$ | 3.357 | 4.878 | 5.989 | 7.779 | $9 / 488$ | 13.277 |
| $\mathbf{5}$ | 4.351 | 6.064 | 7.289 | 9.236 | 11.070 | 15.086 |
| $\mathbf{6}$ | 5.348 | 7.231 | 8.558 | 10.645 | 12.592 | 16.812 |
| $\mathbf{7}$ | 6.346 | 8.383 | 9.803 | 12.017 | 14.067 | 18.475 |
| $\mathbf{8}$ | 7.344 | 9.524 | 11.030 | 13.362 | 15.507 | 20.090 |
| $\mathbf{9}$ | 8.343 | 10.656 | 12.242 | 14.684 | 16.919 | 21.666 |
| $\mathbf{1 0}$ | 9.342 | 11.781 | 13.442 | 15.987 | 18.307 | 23.209 |
| $\mathbf{1 1}$ | 10.341 | 12.899 | 14.631 | 17.275 | 19.675 | 24.725 |
| $\mathbf{1 2}$ | 11.340 | 14.011 | 15.812 | 18.549 | 21.026 | 26.217 |
| $\mathbf{1 3}$ | 12.340 | 15.119 | 16.985 | 19.812 | 22.362 | 27.688 |
| $\mathbf{1 4}$ | 13.339 | 16.222 | 18.151 | 21.064 | 23.685 | 29.141 |
| $\mathbf{1 5}$ | 14.339 | 17.222 | 19.311 | 22.307 | 24.996 | 30.578 |
| $\mathbf{1 6}$ | 15.338 | 18.418 | 20.465 | 23.542 | 26.296 | 32.000 |
| $\mathbf{1 7}$ | 16.338 | 19.511 | 21.615 | 24.769 | 27.587 | 33.409 |
| $\mathbf{1 8}$ | 17.338 | 20.601 | 22.760 | 25.989 | 28.869 | 34.805 |
| $\mathbf{1 9}$ | 18.338 | 21.689 | 23.900 | 27.204 | 30.144 | 36.191 |
| $\mathbf{2 0}$ | 19.337 | 22.775 | 25.038 | 28.412 | 31.410 | 37.566 |
| $\mathbf{2 1}$ | 20.337 | 23.858 | 26.171 | 29.615 | 32.671 | 38.932 |
| $\mathbf{2 2}$ | 21.337 | 24.939 | 27.301 | 30.813 | 33.924 | 40.289 |
| $\mathbf{2 3}$ | 22.37 | 26.018 | 28.429 | 32.007 | 35.172 | 41.638 |
| $\mathbf{2 4}$ | 23.337 | 27.096 | 29.553 | 33.196 | 35.415 | 42.980 |
| $\mathbf{2 5}$ | 24.337 | 28.172 | 30.675 | 34.382 | 37.652 | 44.314 |
| $\mathbf{2 6}$ | 25.336 | 29.246 | 31.795 | 35.563 | 38.885 | 45,642 |
| $\mathbf{2 7}$ | 26.336 | 30.319 | 32.912 | 36.741 | 40.113 | 46.963 |
| $\mathbf{2 8}$ | 27.336 | 31.391 | 34.27 | 37.916 | 41.337 | 48.278 |
| $\mathbf{2 9}$ | 28.336 | 32.461 | 35.139 | 39.087 | 42.557 | 49.588 |
| $\mathbf{3 0}$ | 29.336 | 33.530 | 36.250 | 40.256 | 43.773 | 50.892 |
|  |  |  |  |  |  |  |

## Appendix 18

## Z-Table

| Z | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -3.9 | 0.00005 | 0.00005 | 0.00004 | 0.00004 | 0.00004 | 0.00004 | 0.00004 | 0.00004 | 0.00003 | 0.00003 |
| -3.8 | 0.00007 | 0.00007 | 0.00007 | 0.00006 | 0.00006 | 0.00006 | 0.00006 | 0.00005 | 0.00005 | 0.00005 |
| -3.7 | 0.00011 | 0.00010 | 0.00010 | 0.00010 | 0.00009 | 0.00009 | 0.00008 | 0.00008 | 0.00008 | 0.00008 |
| -3.6 | 0.00016 | 0.00015 | 0.00015 | 0.00014 | 0.00014 | 0.00013 | 0.00013 | 0.00012 | 0.00012 | 0.00011 |
| -3.5 | 0.00023 | 0.00022 | 0.00022 | 0.00021 | 0.00020 | 0.00019 | 0.00019 | 0.00018 | 0.00017 | 0.00017 |
| -3.4 | 0.00034 | 0.00032 | 0.00031 | 0.00030 | 0.00029 | 0.00028 | 0.00027 | 0.00026 | 0.00025 | 0.00024 |
| -3.3 | 0.00048 | 0.00047 | 0.00045 | 0.00043 | 0.00042 | 0.00040 | 0.00039 | 0.00038 | 0.00036 | 0.00035 |
| -3.2 | 0.00069 | 0.00066 | 0.00064 | 0.00062 | 0.00060 | 0.00058 | 0.00056 | 0.00054 | 0.00052 | 0.00050 |
| -3.1 | 0.00097 | 0.00094 | 0.00090 | 0.00087 | 0.00084 | 0.00082 | 0.00079 | 0.00076 | 0.00074 | 0.00071 |
| -3.0 | 0.00135 | 0.00131 | 0.00126 | 0.00122 | 0.00118 | 0.00114 | 0.00111 | 0.00107 | 0.00104 | 0.00100 |
| -2.9 | 0.00187 | 0.00181 | 0.00175 | 0.00169 | 0.00164 | 0.00159 | 0.00154 | 0.00149 | 0.00144 | 0.00139 |
| -2.8 | 0.00256 | 0.00248 | 0.00240 | 0.00233 | 0.00226 | 0.00219 | 0.00212 | 0.00205 | 0.00199 | 0.00193 |
| -2.7 | 0.00347 | 0.00336 | 0.00326 | 0.00317 | 0.00307 | 0.00298 | 0.00289 | 0.00280 | 0.00272 | 0.00264 |
| -2.6 | 0.00466 | 0.00453 | 0.00440 | 0.00427 | 0.00415 | 0.00402 | 0.00391 | 0.00379 | 0.03680 | 0.00357 |
| -2.5 | 0.00621 | 0.00604 | 0.00587 | 0.00570 | 0.00554 | 0.00539 | 0.00523 | 0.00508 | 0.00494 | 0.00480 |
| -2.4 | 0.00820 | 0.00798 | 0.00776 | 0.00755 | 0.00734 | 0.00714 | 0.00695 | 0.00676 | 0.00657 | 0.00639 |
| -2.3 | 0.01072 | 0.01044 | 0.01017 | 0.00990 | 0.00964 | 0.00939 | 0.00914 | 0.00889 | 0.00866 | 0.00842 |
| -2.2 | 0.01390 | 0.01355 | 0.01321 | 0.01287 | 0.01255 | 0.01222 | 0.01191 | 0.01160 | 0.01130 | 0.01101 |
| -2.1 | 0.01786 | 0.01743 | 0.01700 | 0.01659 | 0.01618 | 0.01578 | 0.01539 | 0.01500 | 0.01463 | 0.01426 |
| -2.0 | 0.02275 | 0.02222 | 0.02169 | 0.02118 | 0.02068 | 0.02018 | 0.01970 | 0.01923 | 0.01876 | 0.01831 |
| -1.9 | 0.02872 | 0.02807 | 0.02743 | 0.02680 | 0.02619 | 0.02559 | 0.02500 | 0.02442 | 0.02385 | 0.02330 |
| -1.8 | 0.03593 | 0.03515 | 0.03438 | 0.03362 | 0.03288 | 0.03216 | 0.03144 | 0.03074 | 0.03005 | 0.02938 |


| -1.7 | 0.04457 | 0.04363 | 0.04272 | 0.04182 | 0.04093 | 0.04006 | 0.03920 | 0.03836 | 0.03754 | 0.03673 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -1.6 | 0.05480 | 0.05370 | 0.05262 | 0.05155 | 0.05050 | 0.04947 | 0.04846 | 0.04746 | 0.04648 | 0.04551 |
| -1.5 | 0.06681 | 0.06552 | 0.06426 | 0.06301 | 0.06178 | 0.06057 | 0.05938 | 0.05821 | 0.05705 | 0.05592 |
| -1.4 | 0.08076 | 0.07927 | 0.07780 | 0.07636 | 0.07493 | 0.07353 | 0.07215 | 0.07078 | 0.06944 | 0.06811 |
| -1.3 | 0.09680 | 0.09510 | 0.09342 | 0.09176 | 0.09012 | 0.08851 | 0.08691 | 0.08534 | 0.08379 | 0.08226 |
| -1.2 | 0.11507 | 0.11314 | 0.11123 | 0.10935 | 0.10749 | 0.10565 | 0.10383 | 0.10204 | 0.10027 | 0.09853 |
| -1.1 | 0.13567 | 0.13350 | 0.13136 | 0.12924 | 0.12714 | 0.12507 | 0.12302 | 0.12100 | 0.11900 | 0.11702 |
| -1.0 | 0.15866 | 0.15625 | 0.15386 | 0.15151 | 0.14917 | 0.14686 | 0.14457 | 0.14231 | 0.14007 | 0.13786 |
| -0.9 | 0.18406 | 0.18141 | 0.17879 | 0.17619 | 0.17361 | 0.17106 | 0.16853 | 0.16602 | 0.16354 | 0.16109 |
| -0.8 | 0.21186 | 0.20897 | 0.20611 | 0.20327 | 0.20045 | 0.19766 | 0.19489 | 0.19215 | 0.18943 | 0.18673 |
| -0.7 | 0.24196 | 0.23885 | 0.23576 | 0.23270 | 0.22965 | 0.22663 | 0.22363 | 0.22065 | 0.21770 | 0.21476 |
| -0.6 | 0.27425 | 0.27093 | 0.26763 | 0.26435 | 0.26109 | 0.25785 | 0.25463 | 0.25143 | 0.24825 | 0.24510 |
| -0.5 | 0.30854 | 0.30503 | 0.30153 | 0.29806 | 0.29460 | 0.29116 | 0.28774 | 0.28434 | 0.28096 | 0.27760 |
| -0.4 | 0.34458 | 0.34090 | 0.33724 | 0.33360 | 0.32997 | 0.32636 | 0.32276 | 0.31918 | 0.31561 | 0.31207 |
| -0.3 | 0.38209 | 0.37828 | 0.37448 | 0.37070 | 0.36693 | 0.36317 | 0.35942 | 0.35569 | 0.35197 | 0.34827 |
| -0.2 | 0.42074 | 0.41683 | 0.41294 | 0.40905 | 0.40517 | 0.40129 | 0.39743 | 0.39358 | 0.38974 | 0.38591 |
| -0.1 | 0.46017 | 0.45620 | 0.45224 | 0.44828 | 0.44433 | 0.44038 | 0.43644 | 0.43251 | 0.42858 | 0.42465 |
| -0.0 | 0.50000 | 0.49601 | 0.49202 | 0.48803 | 0.48405 | 0.48006 | 0.47608 | 0.47210 | 0.46812 | 0.46414 |


| z | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.0 | 0.0000 | 0.0040 | 0.0080 | 0.0120 | 0.0160 | 0.0199 | 0.0239 | 0.0279 | 0.0319 | 0.0359 |
| 0.1 | 0.0398 | 0.0438 | 0.0478 | 0.0517 | 0.0557 | 0.0596 | 0.0636 | 0.0675 | 0.0714 | 0.0753 |
| 0.2 | 0.0793 | 0.0832 | 0.0871 | 0.0910 | 0.0948 | 0.0987 | 0.1026 | 0.1064 | 0.1103 | 0.1141 |
| 0.3 | 0.1179 | 0.1217 | 0.1255 | 0.1293 | 0.1331 | 0.1368 | 0.1406 | 0.1443 | 0.1480 | 0.1517 |
| 0.4 | 0.1554 | 0.1591 | 0.1628 | 0.1664 | 0.1700 | 0.1736 | 0.1772 | 0.1808 | 0.1844 | 0.1879 |
| 0.5 | 0.1915 | 0.1950 | 0.1985 | 0.2019 | 0.2054 | 0.2088 | 0.2123 | 0.2157 | 0.2190 | 0.2224 |
| 0.6 | 0.2257 | 0.2291 | 0.2324 | 0.2357 | 0.2389 | 0.2422 | 0.2454 | 0.2486 | 0.2517 | 0.2549 |


| 0.7 | 0.2580 | 0.2611 | 0.2642 | 0.2673 | 0.2704 | 0.2734 | 0.2764 | 0.2794 | 0.2823 | 0.2852 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.8 | 0.2881 | 0.2910 | 0.2939 | 0.2967 | 0.2995 | 0.3023 | 0.3051 | 0.3078 | 0.3106 | 0.3133 |
| 0.9 | 0.3159 | 0.3186 | 0.3212 | 0.3238 | 0.3264 | 0.3289 | 0.3315 | 0.3340 | 0.3365 | 0.3389 |
| 1.0 | 0.3413 | 0.3438 | 0.3461 | 0.3485 | 0.3508 | 0.3531 | 0.3554 | 0.3577 | 0.3599 | 0.3621 |
| 1.1 | 0.3643 | 0.3665 | 0.3686 | 0.3708 | 0.3729 | 0.3749 | 0.3770 | 0.3790 | 0.3810 | 0.3830 |
| 1.2 | 0.3849 | 0.3869 | 0.3888 | 0.3907 | 0.3925 | 0.3944 | 0.3962 | 0.3980 | 0.3997 | 0.4015 |
| 1.3 | 0.4032 | 0.4049 | 0.4066 | 0.4082 | 0.4099 | 0.4115 | 0.4131 | 0.4147 | 0.4162 | 0.4177 |
| 1.4 | 0.4192 | 0.4207 | 0.4222 | 0.4236 | 0.4251 | 0.4265 | 0.4279 | 0.4292 | 0.4306 | 0.4319 |
| 1.5 | 0.4332 | 0.4345 | 0.4357 | 0.4370 | 0.4382 | 0.4394 | 0.4406 | 0.4418 | 0.4429 | 0.4441 |
| 1.6 | 0.4452 | 0.4463 | 0.4474 | 0.4484 | 0.4495 | 0.4505 | 0.4515 | 0.4525 | 0.4535 | 0.4545 |
| 1.7 | 0.4554 | 0.4564 | 0.4573 | 0.4582 | 0.4591 | 0.4599 | 0.4608 | 0.4616 | 0.4625 | 0.4633 |
| 1.8 | 0.4641 | 0.4649 | 0.4656 | 0.4664 | 0.4671 | 0.4678 | 0.4686 | 0.4693 | 0.4699 | 0.4706 |
| 1.9 | 0.4713 | 0.4719 | 0.4726 | 0.4732 | 0.4738 | 0.4744 | 0.4750 | 0.4756 | 0.4761 | 0.4767 |
| 2.0 | 0.4772 | 0.4778 | 0.4783 | 0.4788 | 0.4793 | 0.4798 | 0.4803 | 0.4808 | 0.4812 | 0.4817 |
| 2.1 | 0.4821 | 0.4826 | 0.4830 | 0.4834 | 0.4838 | 0.4842 | 0.4846 | 0.4850 | 0.4854 | 0.4857 |
| 2.2 | 0.4861 | 0.4864 | 0.4868 | 0.4871 | 0.4875 | 0.4878 | 0.4881 | 0.4884 | 0.4887 | 0.4890 |
| 2.3 | 0.4893 | 0.4896 | 0.4898 | 0.4901 | 0.4904 | 0.4906 | 0.4909 | 0.4911 | 0.4913 | 0.4916 |
| 2.4 | 0.4918 | 0.4920 | 0.4922 | 0.4925 | 0.4927 | 0.4929 | 0.4931 | 0.4932 | 0.4934 | 0.4936 |
| 2.5 | 0.4938 | 0.4940 | 0.4941 | 0.4943 | 0.4945 | 0.4946 | 0.4948 | 0.4949 | 0.4951 | 0.4952 |
| 2.6 | 0.4953 | 0.4955 | 0.4956 | 0.4957 | 0.4959 | 0.4960 | 0.4961 | 0.4962 | 0.4963 | 0.4964 |
| 2.7 | 0.4965 | 0.4966 | 0.4967 | 0.4968 | 0.4969 | 0.4970 | 0.4971 | 0.4972 | 0.4973 | 0.4974 |
| 2.8 | 0.4974 | 0.4975 | 0.4976 | 0.4977 | 0.4977 | 0.4978 | 0.4979 | 0.4979 | 0.4980 | 0.4981 |
| 2.9 | 0.4981 | 0.4982 | 0.4982 | 0.4983 | 0.4984 | 0.4984 | 0.4985 | 0.4985 | 0.4986 | 0.4986 |
| 3.0 | 0.4987 | 0.4987 | 0.4987 | 0.4988 | 0.4988 | 0.4989 | 0.4989 | 0.4989 | 0.4990 | 0.4990 |

## Appendix 19

## TABLE

NILAI "T" UNTUK TARAF SIGNIFIKAN 5\% DAN 1 \%

| df/db | 5\% | 1\% | df/db | 5\% | $1 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 12,71 | 63,66 | 24 | 2,06 | 2,80 |
| 2 | 4,30 | 9,92 | 25 | 2,06 | 2,79 |
| 3 | 3,18 | 5,84 | 26 | 2,06 | 2,78 |
| 4 | 2,78 | 4,60 | 27 | 2,05 | 2,77 |
| 5 | 2,75 | 4,03 | 28 | 2,05 | 2,76 |
| 6 | 2,45 | 3,71 | 29 | 2,04 | 2,76 |
| 7 | 2,36 | 3,50 | 30 | 2,04 | 2,75 |
| 8 | 2,31 | 3,36 | 35 | 2,03 | 2,72 |
| 9 | 2,26 | 3,25 | 40 | 2,02 | 2,72 |
| 10 | 2,23 | 3,17 | 45 | 2,02 | 2,69 |
| 11 | 2,20 | 3,11 | 50 | 2,01 | 2,68 |
| 12 | 2,18 | 3,06 | 60 | 2,00 | 2,65 |
| 13 | 2,16 | 3,01 | 70 | 2,00 | 2,65 |
| 14 | 2,14 | 2,98 | 80 | 1,99 | 2,64 |
| 15 | 2,13 | 2,95 | 90 | 1,99 | 2,63 |
| 16 | 2,12 | 2,92 | 100 | 1,98 | 2,63 |
| 17 | 2,11 | 2,90 | 125 | 1,98 | 2,62 |
| 18 | 2,10 | 2,88 | 150 | 1,98 | 2,61 |
| 19 | 2.09 | 2.86 | 200 | 1.97 | 2.60 |
| 20 | 2.09 | 2.84 | 300 | 1.97 | 2.59 |
| 21 | 2.08 | 2.83 | 400 | 1.97 | 2.59 |
| 22 | 2.07 | 2.82 | 500 | 1.96 | 2.59 |
| 23 | 2.07 | 2.81 | 1000 | 1.96 | 2.58 |

Appendix 20
Table
Product Moment

| N | Taraf Significant |  | N | Taraf Significant |  | N | Taraf Significant |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5\% | 1\% |  | 5\% | 1\% |  | 5\% | 1\% |
| 3 | 0,997 | 0,999 | 26 | 0,388 | 0,496 | 55 | 0,266 | 0,345 |
| 4 | 0,950 | 0,990 | 27 | 0,381 | 0,487 | 60 | 0,254 | 0,330 |
| 5 | 0,878 | 0,959 | 28 | 0,374 | 0,478 | 65 | 0,244 | 0,317 |
|  |  |  | 29 | 0,367 | 0,470 | 70 | 0,235 | 0,306 |
|  |  |  | 30 | 0,361 | 0,463 | 75 | 0,227 | 0,296 |
| 6 | 0,811 | 0,917 | 31 | 0,355 | 0,456 | 80 | 0,220 | 0,286 |
| 7 | 0,754 | 0,874 | 32 | 0,349 | 0,449 | 85 | 0,213 | 0,278 |
| 8 | 0,707 | 0,834 | 33 | 0,344 | 0,442 | 90 | 0,207 | 0,270 |
| 9 | 0,666 | 0,798 | 34 | 0,339 | 0,436 | 96 | 0,202 | 0,263 |
| 10 | 0,632 | 0,765 | 35 | 0,334 | 0,430 | 100 | 0,195 | 0,256 |
| 11 | 0,602 | 0,735 | 36 | 0,329 | 0,424 | 125 | 0,176 | 0,230 |
| 12 | 0,576 | 0,708 | 37 | 0,325 | 0,418 | 150 | 0,159 | 0,210 |
| 13 | 0,553 | 0,684 | 38 | 0,320 | 0,413 | 175 | 0,148 | 0,194 |
| 14 | 0,532 | 0,661 | 39 | 0,316 | 0,408 | 200 | 0,138 | 0,181 |
| 15 | 0,514 | 0,641 | 40 | 0,312 | 0,403 | 300 | 0,113 | 0,148 |
| 16 | 0,497 | 0,623 | 41 | 0,308 | 0,398 | 400 | 0,098 | 0,128 |
| 17 | 0,482 | 0,606 | 42 | 0,304 | 0,393 | 500 | 0,088 | 0,115 |


| 18 | 0,468 | 0,592 | 43 | 0,301 | 0,389 |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 19 | 0,456 | 0,575 | 44 | 0,297 | 0,384 | 600 | 0,080 | 0,105 |
| 20 | 0,444 | 0,561 | 45 | 0,294 | 0,380 | 700 | 0,074 | 0,097 |
| 21 | 0,433 | 0,549 | 46 | 0,291 | 0,376 | 800 | 0,070 | 0,091 |
| 22 | 0,423 | 0,537 | 47 | 0,288 | 0,372 |  |  |  |
| 23 | 0,413 | 0,526 | 48 | 0,284 | 0,368 | 900 | 0,065 | 0,086 |
| 24 | 0,404 | 0,515 | 49 | 0,281 | 0,364 |  |  |  |
| 25 | 0,396 | 0,505 | 50 | 0,279 | 0,361 | 1000 | 0,062 | 0,081 |

Appendix 21

## DOCUMENTATIONS



Picture 1. The researcher was explained about the test


Picture 2. Deploying the questionnaire to students


Picture 3. The students did the test


Picture 4. The students did the test.


Picture 5. The researcher was turning on the recording to the students.


Picture 6. The students did the test.

## CURRICULUM VITAE



## A. Identity

Name
Reg. Number
Place/Birth
Sex
Religion
. Islam
Address : Desa Sibur-bur, Sipiongot,
Kec. Dolok, Kab. Paluta
B. Parents

| Father‘s Name | : Mhd. Ali Imran Ritonga |
| :--- | :--- |
| Mother‘s Name | : Siti Rohani Harahap |

C. Education Background

1. Elementary School : SDN 100320 SIRAGA
2. Junior High School : MTs Negeri 3 Padang Lawas Utara
3. Senior High School : MAN 1 Padangsidimpuan
4. Institute
: UIN Syekh Ali Hasan Ahmad Addary
Padangsidimpuan

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